# THE LANCET.

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## LECTURES

ON SOME

## DISEASES OF THE SKIN,

DELIVERED AT THE HÔPITAL ST. LOUIS,

BY BARON ALIBERT.

### *ERYTHEMA.*

*Species 5.—Erythema Pernio.*

THIS affection occurs especially on the appearance of the first cold weather. It is intense in proportion to the rigour of the winter, and generally continues until the return of fine weather. The cause is here the only thing which gives us the specific character, for the skin is perfectly red as in the other erythemata. The affection is liable to increase. The skin splits, and ulcerates in a thousand forms. Blisters form on the surface of the skin, and give rise to large epidemic exfoliations. We meet children whose hands are so inflamed by this affection that they cannot use them, and they experience a feeling of superficial itching, which sometimes degenerates into an insupportable tickling.

The beggars affected with this erythema, who present themselves at Saint Louis, have pale and sanious ulcers; their skin is blueish and almost livid. The pain seems to change its nature, as the disease proceeds. Some individuals complain of a most inconvenient burning sensation. One of the most unpleasant symptoms is the appearance of phlyctenæ, which become filled with an excessively acrid yellowish serosity. These phlyctenæ open, and then the epidermis is renewed; but frequently excoriations are formed, which produce deep ulcers, and invade a more or less considerable space.

Some pathologists have pretended that these ulcerations may attack and render carious the bones. If this be correct, such cases are at any rate extremely rare. When the cold of the season, however, reaches a very severe pitch, the parts affected may become gangrenous, and very disagreeable consequences be thus induced.

*Species 6.—Erythema by Adustion.*

The action of fire on a living being produces results quite different from those it induces on dead and insensible flesh.* It is necessary to read and reflect on the writings of surgeons on these dreadful accidents, and the means of repairing their effects. Dr. Thomson, of Edinburgh, in his learned treatise on inflammation, gives excellent advice on this subject. Professor Boyer too points out with vigorous precision every event from the attack to the destruction of the parts. M. Dupuytren adopts six periods in the methodical progression of these morbid phenomena. 1st, the skin undergoes rubefaction, the fact which constitutes the affection an erythema; 2nd, it is covered with phlyctenæ; 3rd, the dermis divides and is excoriated; 4th, it is reduced into eschars; 5th, the inflammation completely consumes the tissues which separate the skin from the bones; 6th, the affected part is entirely carbonized.

In our hospitals these different states are met with but individually; an afflicting circumstance, however, gave us one melancholy opportunity of observing them together. Every one still remembers the brilliant banquet given by a German ambassador to the Emperor Napoleon in 1810. How the vast ball-room could suddenly become a prey to a horrible conflagration it is difficult to imagine, but it is nevertheless certain, that six hundred persons had simultaneously to struggle with the ever-increasing flames of that memorable fire, and never, perhaps, did fire invade a greater number of victims whose terror paralyzed their flight. In the midst of the disorder, none could escape the showers of flame which fell on every

* See the admirable Medico-legal Investigation of this difference published by Dr. Christison in the *Edinburgh Med. and Surgical Journal*, and subsequently analysed in THE LANCET.—ED. L.

side. Every circumstance seemed to favour and feed its ravages. The varnished paper with which the apartments were adorned, the multiplicity of the lustres, the light dresses of the ladies, and the metallic and brilliant ornaments of the eminent personages present, all contributed to aggravate the event. Some medical men were immediately called to the scene of the disaster.

Every description of our schools there found an illustration. As the victims were extricated from the burning edifice, we could observe around us, the effects of fire in all their extraordinary variety. And never was there a more heart-rending spectacle, or one from which science had more to learn. Some who could not escape the first attacks of the fire, had their hands all blistered. In others the skin was as if stamped by red-hot iron, or covered with black and sanguinolent eschars. We saw a boy of 15, whose face was one vast wound. Several young females, but a moment before brilliant with beauty, had become irrecognizable by the puffing up of their scorched features. They seemed absolutely as if they had issued from the infernal regions. One lady was quite roasted by the cataracts of fire which fell from the roof of the saloon. When the remains of the Princess Pauline of Schwartzenburg were collected, who perished as she rushed into the flames to rescue her daughter, there only remained the skeleton in a state of perfect calcination. To form an exact notion of this immense calamity, we should add the faintings, the convulsions, the asphyxiæ, the insufferable constriction of the limbs by the parching and hardening of the skin, the dryness of the mouth, the implacable thirst and horrible pain, whose only antidote was delirium, with a multitude of lesser, though afflicting, details, which completed the melancholy scene.

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### ETIOLOGY OF ERYTHEMA.

Erythema is a phenomenon so varied, that it is very useful to classify its *causes* correctly. Relative to the *sporadic* cases, the following facts are pertinent to this division of our subject.

A man whose hands were constantly exposed to the air and wind, was attacked with an erythematous redness of those parts. The skin presented some vesicles full of an ichorous serosity, as if it resulted from the contact of boiling water. These vesicles were succeeded by cracks and desquamations. The epidermis became conaceous, and fell off in small flakes. Having discontinued his occupation, the patient soon recovered. Several analogous cases have come within my observation. I remember one of a soldier, who fell asleep in the sun's rays, with his cuirass on, and was attacked with an erysipelas of the face, which nearly cost him his life. Old men who have the pernicious custom of keeping their legs constantly close to the fire, and women who sit much upon chaufferettes, are much exposed to the sporadic erythema. Moral causes have also their influence. A fruit woman had a violent quarrel with her husband, immediately after which, she was seized with a profuse hemorrhoidal discharge; at the same instant there supervened on the groins, the belly, the thighs, hand, fore-arms, and about the neck, large inflamed patches intensely itchy. They insensibly passed to a violent red colour. The swelling diminished, and the wrinkled epidermis was soon subjected to copious exfoliations.

But what causes can we assign to the epidemic species? (the *acrodynia* or *mal de Paris* of other writers). All is here as yet conjectural. This singular affection has been successively attributed to meteorological conditions, to local circumstances of insalubrity, to the nature of food, &c. But nothing is proved in this respect, since the disease has prevailed in every variety of weather and season, and amongst individuals well lodged and nourished. It was with extreme injustice that an attempt was made to fasten it on the presumed poisonous effects of new potatoes, since many of our patients had not used this article of food at all. The beer, wine, &c., of commerce, were also examined, and contained nothing pernicious. However, all these causes, true or pretended, have been critically discussed in M. Defermon's thesis.

We have ourselves studied the causes of the endemic or *pelagrous erythema*. We especially questioned the patient mentioned in a preceding page, and who appeared at our clinic during the wars of Buonaparte. This individual, though a Breton by birth, arrived in Paris from Milan, and had only been eight months on service. Occupied from his youth in the laborious employment of agriculture, his ordinary nourishment was bouillie made of black wheat. From the commencement of his exile with the army he was constantly ill, ennui was depicted on his countenance, he was melancholy, taciturn, and sought for solitude. Endeavouring to avoid his comrades, he lay down once in the open air, exposed to the sun's rays, with his hands placed over his head, so that the fingers were crossed with each other. Having fallen asleep

in this attitude, slight inflammation took place, the skin became red, and on his awaking he experienced burning heat in the parts, as well as great headach. After some days the epidermis split, and fell into desquamation. The metacarpo-phalangean articulations were especially altered, having deep chinks, very dry, with callous and unequal edges, the surrounding skin being of a coppery and dark hue. It was in this state that MM. Husson and Assalini ascertained the disease to be the pelagrous erythema.

Many attempts have hitherto been made to investigate the etiology of this affection. All ages and sexes are susceptible of its attacks. Labourers are especially liable to it, because they inhabit low and ill-ventilated houses. The majority of them are accustomed to spend the winter in stables among the cattle. They eat bad bread. Their only drink is impure river water, well, or pond water. Let us add, that the early agricultural labour is excessively fatiguing, and performed in a very variable temperature. To avoid all hindrance in their work they take off a part of their clothes, and often stop in the fields at the height of noon to take their meal. The skin, already weakened by the circumstances we have detailed, exercises no reaction against the run's rays. There are few diseases, however, the causes of which have been searched for with more persevering activity. Frapolli, Lanetti, Gherardini, Janseu, Albera, Videmar, Strambid, Cerri at Milan, Allioni, Bunisa at Turin, Fanzago at Padua, Paolo della Bona, Soler, and Gherlanda at Treviso, Odoardi at Belluno, Facheris at the great hospital of Bergami, Villa in the environs of Lodi, &c., have sought for, and described interesting facts bearing on this subject.

The causes of the *erythema paratrima* are easily determined. We observe this phenomenon in men and women of a certain degree of corpulence. It is essential to distinguish it from the *herpes squamosus madidans*, which almost always induces a desquamation of the epidermis, and occasions a similar dewy exudation in the parts affected. It is very frequent in neglected children. Trades, professions, habits, unusual labours, may influence the frequency of the erythemata produced by cutaneous friction. Horsemen of every kind are liable to it. In adynamic fevers the coccygeian paratrima depends on the constant lying on the back. I have already mentioned the circumstances which favour the development of the palmar variety.

The *erythema pernio* is manifestly determined by the action of cold, and it especially occurs when the cutaneous capillary veins are in a state of inertness. It often proceeds from a partial congelation. The extremities of the body are particularly subject to it, from the inferior activity of the perspiration in those parts. The skin in women and children is very susceptible of this morbid state, being naturally more humid and relaxed than in the adult and vigorous male. It affects some countries more than others, and is particularly prevalent in marshy situations, which are neither cleared out by the wind, nor warmed by the sun.

The *erythema by adustion* is characterised and modified according to the innumerable and very different causes which produce it. There are agents which transmit caloric with extreme rapidity, such as incandescent iron, copper, melted lead, boiling oil, greases, phosphorus, &c. Other agents are less active, and only touch the surface as it were; such are ether, alcohol, and similar substances. Some individuals can by habit acquire a degree of resistance to the deleterious action of fire. Smiths often exhibit examples of this immunity, and such are the *incombustible* gentry who speculate on the vulgar love of the miraculous. But a fact worthy of our attention is, that of all living beings, man is most exposed to the bad effects of excessive heat. Physiologists have recorded cases of spontaneous combustion, by means of which the bodies of certain individuals, apparently predisposed by the abuse of spirituous liquids, have been the prey of an incineration more or less rapid, to the great astonishment of the spectators.

I shall next proceed to the *treatment* of erythema.

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### TREATMENT OF ERYTHEMA.

There are cases of erythema which require our serious attention. The irritation to be combated calls for the employment of all the substances which exercise a relaxing action on the skin. Our selection of these substances must be guided, above all, by the mildness of their elementary principles. When the malady depends on a disordered state of the primæ viæ, we must give mild lemonades, barley-water, whey, veal, and chicken-broth, or decoction of frogs. If dependent on an external cause, we have recourse to baths of starch or of gelatine. The effect of mucilaginous local applications to irritated surfaces is well known. Oily embrocations, compresses steeped in a decoction of mallows, or in milk, are also used. Different cataplasms may be successfully

tried, but in some cases the resolvent medication is more strongly indicated than the emollient now mentioned. For this purpose pommades are prepared with the acetate of lead, or Goulard's lotion is had recourse to. If it be necessary to calm a too violent eczemation, nothing is more appropriate than decoctions of dulcamara and hyosciamus, poppy infusions, and opiate solution. In the erythema produced by the bites of insects, Reaumur advised the application of cold water.

*Epidemic Erythema.*

A great deal of empiricism has been resorted to in the treatment of the epidemic erythema (*acrodyne*). On its first appearance, every practitioner acted on the most apparent symptoms, and especially according to his own ideas of the nature of the disease. The most attentive study and cadavine examinations revealed nothing of its essence. Moreover, the epidemic erythema was not really terrible, except to those already enfeebled by other diseases. It was thus that we lost two young women singularly predisposed to pulmonary consumption. In these, marasmus made great progress, and they were taken off by hectic fever. The physicians who first observed the epidemic, endeavoured to cure the predominant inflammatory symptoms by the application of leeches or the operation of phlebotomy. They had recourse to anodynes to appease the burning itchings, the creeping and pricking sensations in the hands and feet. At St. Louis, we used with success the baths of emollient vapour. The majority of the patients had aberrations of the sense of touch. When the action of the nervous papillæ seemed blunted, we had recourse to aromatic fumigations, and *douches* of sulphurous water from the *arrosoir*. But in general we gave the preference to mild laxatives, and the antiphlogistic regimen. We had no reason to regret our first attempts.

*The Pelagra.*

We may pass over the unmeaning polypharmacy detailed in many works, for the treatment of the *pelagrous erythema*. The most suitable, in general, is plentiful and good nourishment, especially the flesh of young animals, chicken-broth, &c. Facheris proposes the use of animal gelatine, and he also mentions milk as an excellent specific. The individual was treated in the Hôpital St. Louis; he was tormented by a devouring hunger, and we gave him soup and other nutritive food. M. Gaspard Ghirlanda has published some excellent practical observations on the treatment of the pelagra in his memoir. He prescribes diluting drinks, frequently rest, but sometimes exercise in proportion to the strength of the patient. He had recourse to anodynes to moderate the phenomena of exalted sensibility. Of these he prefers opium, camphor, and the ethers. Tonics may be indicated, but are always to be employed with caution. Strambio himself says he has not been satisfied with the results of valerian and quinquina, and that he derived more benefit from wine and generous diet. Warm-baths, whether general or partial, and fumigations, favour transpiration and the critical eruptions of the skin. Emollient cataplasms, frictions, cupping, sinapisms, and blisters, may also be employed. The accompanying irritation may sometimes render the application of a few leeches necessary. Unfortunately the condition and situation of the patients often prevent their being observed with sufficient perseverance, or treated in the appropriate manner. In an interesting memoir, communicated to the Academie des Sciences, by M. Brierre de Boismont, respecting the causes of this affection, he attributes it to a primitive inflammation of the digestive organs, and considers all the other symptoms as secondary phenomena. But even as such they are not the less deserving our attention.

*Erythema Intertrigo.*

Little need be said respecting the *erythema intertrigo*. Although the affection is not dangerous, its treatment must not be neglected. Mild regimen must be adopted. We must avoid all articles of diet into which enter butter, oil, nutmeg, or other spices of this nature. We must also insist on the use of whey, aperient broths, dandelion juice, lettuce, and chervil juice. Relaxing topical applications, such as starch dissolved in warm water and oils, are of great advantage. To absorb the moisture, the powder of lycopodium is had recourse to. Under almost all circumstances baths are useful. Decoction of bark, infusion of the Provence rose, aluminous solutions, &c., are employed with great success. I need not allude to the surgical remedies. The palmar paratrima yields to fumigations and long-continued cataplasms, when the occasional causes have been avoided.

*Chilblains.*

The treatment of the *pernio*, or chilblain, is often confided to empirics. Medical men prescribe, according to the cases, soothing, resolvent, and slightly tonic medicines; the vinous or alcoholic tinctures of sage, tansy, eupatory, and other aromatics. Some styptics and astringents

are also employed, such as the decoction of galls, pomegranate flowers, &c. In northern climates, friction with snow is the best of all topical remedies. Some saline solutions are also recommended. M. Lisfranc uses with success the chlorurets of the oxides of sodium and calcium in chilblains, both ulcerated and entire. He places on the affected parts pierced compresses smeared with cerate, and covers them with a considerable mass of charpie steeped in those solutions at the strength of three degrees of the chlorometer of Gay Lussac. The bandages, &c., must be kept constantly wet. This treatment may be employed, however intense the inflammation, but we must take care to diminish the strength of the liquid when it causes too much pain, and, on the other hand, to increase it when not sufficiently active. Borax has been proposed in the proportion of two drachms to the ounce of rose ointment. The pained parts are sometimes rubbed with beef-marrow dissolved in spirits of wine. Mutton suet, mixed with brandy, is also occasionally useful. When the inflammation is very violent, we have recourse to substances merely relaxing, such as lotions with decoctions of mallows, solution of starch, spermaceti cerate, and various mucilaginous substances.

*Burns.*

The curative means to be employed in *erythema by adustion*, remain to be indicated. Here we have only to treat of burns of the first and second degrees.

When this erythema occurs in a superficial form, what is of chief importance is to prevent vesication, for negligence in this respect may determine serious ulterior irritations, and prolong the duration of the evil. Instinct always impels the person who has met with such an accident to have recourse to the refrigerant method, one which doubtless leads to the most desirable end, namely, the facilitation of resolution. The Arabs understood the nature of this treatment well. Iced water, Goulard, alcohol, and ether, are known as advantageous applications, I cannot say to what extent the raw cotton, praised by several individuals, may be found to answer their expectations. It can be of no utility but in the second degree of the inflammation. In this case M. Jules Cloquet has recourse to the down of a species of marsh bull-rush (*phyta latafolia*, Linn.), which he regards to be of sovereign utility in the treatment of burns, in order to absorb the pus, to defend the affected part from the contact of the air, and to avoid other serious complications.

The development of *phlyctenæ* is a more intense degree of the deleterious action of heat. These phlyctenæ are especially abundant wherever the skin is tender, delicate, and relaxed. The custom is to evacuate them from their lowest part, at the same time preserving them from the too active influence of the atmosphere. The burns are then dressed with soft cerate, and partially oleaginous baths and embrocations are employed. The local irritation may also be restrained by cataplasms of potato-starch, with semolina boiled in milk or in the decoction of ether.

It is asserted that in the treatment of burns M. Lisfranc has obtained the same success as in that of chilblains, from the solution of the chlorurets of lime and soda. We must also use some internal remedies. The fever is allayed by abstinence, by diluent drinks, such as barley-water, flax-seed, infusion, &c. We attempt to appease the pain by mild anodynes, such as the extract of lettuce, and of the corn poppy, the syrup of the white poppy of Karabé, &c. I only point out here the general proceedings, for in these burns the accidents are exceedingly varied, and of very uncertain duration, each of them claiming, we might almost say, a separate treatment to be followed, according to the most prominent indication.

*Extraordinary Case of Prince Kourakin.*

In early times it is said that all extraordinary cures were announced in the public places, and the mode of their performance declared. I may, on the same principle, mention a case here, which is at the same time consolatory to humanity, and creditable to the resources of art. I have already mentioned the conflagration that took place in Paris, at the ball of the Austrian ambassador. Amongst the victims of that disastrous evening was the prince of Kourakin, a valued diplomatist, who was healed with wonderful success by M. Piet. The prince was certainly one of those most injured by the fire. When carried home his death seemed close approaching, his forehead was covered with blisters, his eyelids scorched and greatly swollen, his head covered with black burns. Every degree of combustion was present in his person; the left ear was reduced to charcoal, the surfaces of the limbs were deprived of epidermis, the left hand was nearly roasted, the skin black in several places, yellow in others. Where it preserved traces of organization, it came away in detached flakes gorged with blood. Here and there were seen hard, dusky, and insensible eschars; the nails were either torn off or else loose.

The pain was so horrible, that the patient uttered piercing cries. He experienced faintings and convulsions. His sufferings had been much increased by the numerous military orders, &c., which shone on his dress. Some of them were melted on his breast, and his diamond rings were converted into so many fiery circles, which strangulated his fingers. The first dressing, consisting of almond oil and lint, covered with an opiate cerate, was spread over the enormous sores, by which means the pains were slightly relieved. The pulse however rose, became hard and frequent. Fever set in with all its vehemence. Soon after he became calm, complained little, and was in a state of mental stupor. It was now found that the skin had been burned through to the muscles. On the fifth day the scalp swelled considerably, and soon after erysipelas of the face supervened. M. Dubois, and some other practitioners, were now consulted by M. Piet. Inflammation of the meninges was apprehended. The heat of the atmosphere was moreover excessive, and general gangrene seemed by no means unlikely.

To ward off these fearful accidents, the prince was placed on the use of the decoction quinquinæ by the mouth, and injection, with the addition of a little camphor. Diluent drinks and rigorous abstinence were enjoined. Poultices were applied to dissipate the swellings of the scalp. The other surfaces were dressed with cerate. The arm and forearm, which were the parts most injured, were covered with doubled cloths steeped in camphorated spirits, renewed at intervals. The most minute attentions were, moreover, lavished on the patient. Servants agitated the atmosphere about his person. His bed was surrounded by basins filled with ice. At certain hours his apartment was filled with odoriferous plants and vinegar, and aromatics were continually kept burning. On the 6th of July he felt a little relieved. Some broth was given, and the bark continued. The eyelids commenced to open, and hopes of recovery were now entertained. The sores now followed their regular course, frequently, however, retarded by various thwarting incidents. Hemorrhage supervened, and caused great weakness, and the prodigious suppuration increased this state of prostration. Occasionally, horrible pain was experienced on the separation of some of the burned portions of the skin, and the consequent exposure of new and raw surfaces. The dressings always lasted two hours, and occasioned such torture, that to prevent fainting, it was necessary to intermit them occasionally.

Notwithstanding all this, on the 20th of July the patient felt an appetite for solid food, and from the 27th of July the progress of convalescence was uniform. Finally, after ten weeks of sufferings, MM. Piet and Dubois had the satisfaction of witnessing a perfect cure, effected by their inventive genius and sagacious treatment. We cannot but admire the gradation of the means they employed to moderate this enormous inflammation, to allay the pain, to direct the suppuration, to prepare the fall of the eschars, to dry the ulcerated surfaces, to correct the deformities, and to arrest, in fine, the sympathetic disorders which occurred every moment. There was a time when the treatment of burns was an object of speculation to the empiric, but we see by these details that to effect such a cure requires the dexterity of an ingenious surgeon, the intelligence of a skilful physician, and all the resources the consummate practitioner can command.

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# CLINICAL LECTURES ON SURGERY,

DELIVERED AT THE

## *HOTEL DIEU, PARIS,*

BY

## M. LE BARON DUPUYTREN,

*During the present Session*, 1833.

[Revised (before translation) by the Baron himself in the fasciculi of his "Leçons Orales de Clinique Chirurgicale," published periodically by G. Bailliere, Paris.]

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### HYDROCELE AND ITS PRINCIPAL VARIETIES.

NOTHING, Gentlemen, is more easy than the diagnosis of simple hydrocele, nothing better established than its treatment; I shall therefore speak briefly of the principal affection, and occupy myself almost exclusively with the varieties and complications which it may present. You all know that hydrocele is a name applied to the collection of a serous fluid in the scrotum, and that it is of two kinds; in one the fluid is poured out into the cells of the cellular tissue, in the other the serum is collected in a single cavity. In practice we sometimes meet a third variety, in which the fluid is contained in an accidental serous cavity developed either in the chord, epidydimis, or body of the testicle. Before we proceed to treat of the different species of hydrocele, it may be well to speak a few words of certain varieties in the organization of the cellular tissue, which are closely connected with the

first form of the disease. I have observed four varieties of the cellular tissue, viz.—

1st. The fatty cellular tissue, developed in the epiploon of certain individuals in large quantities. When inflammation attacks this tissue, it usually terminates in a sort of degeneration and putrid infiltration, as we see in strangulated hernia where the epiploon is engaged, and in sheep who have been inoculated with small-pox or vaccine virus, in order to guard them from certain disorders.

2nd. The fibrous cellular tissue, containing neither fat or serum. In man this tissue exists particularly near the joints, and the inflammation developed in it is generally complicated with strangulation of the parts engaged.

3rd. Elastic cellular tissue. We observe this chiefly in the vicinity of tendons which are not furnished with bursæ, as in the palm of the hand; inflammation of this tissue has a peculiar tendency to extend itself to distant parts.

4th. Serous cellular tissue, which does not contain fat, is not elastic, but is always moistened by a certain quantity of serum. This exists particularly in the eyelids, scrota, &c.; it is the seat of hydrocele by infiltration. With respect to its seat, this latter species of hydrocele occupies either the chord, the middle layer of cellular tissue, or the subcutaneous areola. In the first case the tumour is circumscribed, and confined to one of the chords; in the second it is elongated, extends from the ring to the bottom of the scrotum, and pits upon pressure; in the third case the tumour is large, doughy, and rapidly extends to both scrota. A knowledge of these varieties is important in a practical point of view; for, in the two first, it is necessary to make several incisions, more or less extensive, while in the third variety a single puncture usually suffices to give exit to all the fluid.

Diffused hydrocele (*par épanchment*) gives a sense of fluctuation to the finger; it rises from the bottom of the scrotum towards the ring, is usually placed in front of the testicle, and seldom offers any marked appearance of resistance or solidity. But these symptoms are liable to many variations; let us take an example:—

Case 1.—*Hydrocele punctured at twice.*—A man, who had been treated for hydrocele by puncture in some other hospital, came to the Hôtel Dieu. He said that a little blood had been discharged through the canula, but no serum, and that the scrotum immediately afterwards became swollen and painful. On examining the tumour with a candle, I found it transparent behind, but opaque before, where the testicle was situated, and which had been wounded in the first operation. A second puncture, practised at the *back* part of the tumour, was sufficient to discharge all the fluid.

Sometimes hydrocele of the tunica vaginalis is complicated with encysted hydrocele of the chord, which gives rise to frequent errors in the diagnosis. From its situation near the ring, it may be, and has been frequently, mistaken for hernia; and we must confess, that sometimes it requires a great deal of attention to discover the true nature of the disease. When the patient is placed on his back, we may remark that the tumour of the hydrocele is round, circumscribed, and isolated from the intestine or epiploon; besides which it is usually transparent, and accompanied with a sense of fluctuation; but at other times the diagnosis is much more difficult and obscure. Here is an example:—

Case 2.—*Encysted Hydrocele of the Chord.*—A child, twelve years of age, was treated in 1828 for hydrocele of the tunica vaginalis, by injection, and perfectly cured. Some months afterwards there appeared near the external ring a soft, indolent tumour, which was mistaken for a hernia, and a bandage was applied; but as the tumour continued to enlarge, the child came in again in October, 1829. I found opposite the external ring an oblong tumour, extending down along the chord. When the child couched, we did not feel any increased tension in the tumour, which, besides, was transparent; it could be returned into the inguinal canal, but was evidently isolated from the surrounding parts; these symptoms indicated an encysted hydrocele, and I determined to operate by incision. The incision was accordingly practised with as much caution as if an hernia existed. The cyst was divided and filled with charpie, in order to excite inflammation, which came on in two or three days, and completed the cure.

I have seen hundreds of these encysted hydroceles taken for hernia, and treated by bandages, &c. The uncertainty which sometimes of necessity hangs over the diagnosis should regulate our mode of treatment; injection is undoubtedly the best means we can employ, but should we have committed an error of diagnosis, and injected an irritant fluid into an hernial sac, the worst accidents are to be apprehended. This is not an imaginary danger, but has frequently happened. In one case the injection was not followed by a fatal peritonitis, although the sac communicated with the abdomen, but usually it is mortal. When, therefore, we have the least doubt on our minds, we should prefer incision of the cyst. It is also useful

to remark, that the incisions should be made slowly and with caution, as we can never beforehand determine the precise situation of the spermatic vessels. With regard to its form, hydrocele presents many varieties; sometimes it is flat and regular in form; occasionally it is divided into two portions at the middle by a narrow neck.

Case 3.—*Hour-glass Hydrocele.*—In 1824 we had a remarkable example of this hour-glass hydrocele; one portion of the tumour occupied the scrotum, while the other was placed in the abdomen above the ring, which constituted the contracted neck. When the patient stood up and coughed, the inferior portion was manifestly distended; when he lay down, the greater part of the fluid passed into the abdomen from the scrotum.

Sometimes we find in the centre of a simple hydrocele various cells and bridles of cellular substance, which prevent the complete discharge of the fluid after puncture. Here incision is preferable to every other method. However, I shall relate to you an exception.

Case 4.—*Division across a Hydrocele.*—A man came in on the 3rd of May, 1833, with a tumour of the left scrotum, which was transparent, fluctuating, and irregular. Attributing the irregularity of the tumour to the resistance of the tunica vaginalis, I plunged into it a trochar, which gave exit to a yellow fluid; but the tumour was only half emptied; the projecting point of the remaining tumour was again punctured, and a muddy liquid drawn off; the first fluid readily coagulated by heat; the latter was not in the least affected by it.

This observation appears to me of some importance, for it occasionally happens that hydroceles, regarded as multilocular, are nothing but an hydrocele of the tunica vaginalis complicated with an encysted hydrocele of the chord. Hydrocele of the tunica vaginalis presents striking differences, according as it exists in the adult or in the infant.

The nature of congenital hydrocele is well known to you all; I shall only remark, that I have seen it even when the testicle still remained in the abdomen, or when it has been just on the point of passing through the external ring. In these two varieties of hydrocele, the tumour is only covered by the integuments of the scrotum, and the fascia superficialis. Its upper part seems to enter into the opening of the external oblique muscle, and the testicle is found adherent to the posterior parietes of its neck. Finally, it communicates with the abdomen by a small opening. Amongst the accidents which complicate hydrocele, we should place hernia in the first rank; we find this most frequently in old men. In most cases the hydrocele is placed in front of the hernia, but occasionally it glides behind it. In the former case it sometimes happens, that a portion of the intestine or epiploon passes through the interstices of the cellular tissue which surrounds the tunica vaginalis, and projects into the centre of the fluid forming the hydrocele. These secondary tumours are covered by the hernial sac, and also by the serous layer which invests the testicle. Out of six cases of this kind which fell under my observation, I saw two where strangulation took place at the point where the intestine traversed the tunica vaginalis testis. Here it is necessary to divide the tunica vaginalis, when we at once perceive the secondary hernia projecting into its cavity. The sac of the hernia must now be opened and the stricture divided, when the parts are readily reduced without touching the ring. As the hydrocele may be more or less completely covered in front by a hernial sac containing a portion of epiploon, we should take great care not to puncture the sac when operating. The relations of the two sacs are of importance to be known; they are, besides, various; sometimes the watery tumour surrounds altogether the hernial sac; at other times, as we have remarked, the tunica vaginalis gives way at some point corresponding to the hernia, which projects into the cavity, and is occasionally strangulated there. Sometimes certain serous cysts become developed in the scrotum, and attain a considerable volume. Whether situate here or in the chord, they may be readily mistaken for hydrocele. Again, collections of pus, a scrofulous condition of the testicle, and other products of chronic inflammation, have been in many cases considered as encysted hydroceles.

The state of the tunica vaginalis presents different degrees of degeneration, which are worthy of your notice. At the commencement of the disease it is thin and transparent; but when the affection has lasted for some time, this membrane, or rather the cellular tissue inclosing it, acquires a strength and density sometimes resembling cartilage. Occasionally I have seen the serous membrane give rise to abundant exhalations of blood, or present various ossified spots. The following cases will give an idea of the difficulties sometimes produced by such a state of things.

Cases 5 and 6.—*Hydroceles with change in the Structure of the Tunica Vaginalis.*

An old man entered the hospital, having in the scrotum a tumour larger than two

fists; it was attended with fluctuation in front, and easily isolated from the ring. Behind we felt two hard tubercles. This patient died from some other cause, and on examination we found the tunica vaginalis changed into a cartilaginous membrane, half a line in thickness. The two tubercles observed behind, were two points where the cartilage was thicker, and presenting a small centre of ossification. In the year 1820, I was consulted by a man about forty years of age. In one of the scrota I observed a round unequal hard tumour, opaque, of some magnitude, and not to be separated from the testicle. These symptoms were equally applicable to an hydrocele, a sarcocele, or an hydrosarcocele, and the nature of the disease could not have been determined without a consideration of its previous history, from which we learned that the disease had existed twenty years, was never painful, and had often been treated by puncture and injection. Hence it was natural to conclude it an hydrocele complicated with a cartilaginous state of the tunica vaginalis, and to determine on excision as the proper mode of treatment. This operation was accordingly performed; the walls of the cyst were from four to five lines in thickness, and the cavity was divided into parts by different false membranes. The patient was cured in about a month.

Of all the means employed for the radical cure of hydrocele, injection is the one most generally used. I have, however, successfully applied a blister to the scrotum; this remedy produces the absorption of the fluid, and adhesion of the sides of the cavity. When we use injection, it is not a matter of indifference whether we use one material or another. I generally prefer one mode, viz. boiling two ounces of roses in a pint of strong wine, and occasionally increasing the strength, when necessary, by a few spoonfuls of brandy. I then make three injections, after intervals of two or three minutes, always taking particular caution that the point of the syringe is well planted in the cavity of the tunica vaginalis. This we are assured of, when we find that the nozzle of the syringe moves readily in lateral directions. If, on the contrary, these movements are impeded, most probably the instrument is fixed in the cellular tissue. When this rule is neglected, the injection is often forced into the tissue of the scrotum, which is, in consequence, attacked by gangrene. I shall conclude these observations by an example of this kind.

Case 7.—*Mal-Puncturation.*—A person affected with hydrocele was received into another hospital, and the tumour was injected, but the fluid pressed into the cellular tissue, and gave rise to the most violent inflammation, which was combated by appropriate means. The effusion having appeared a second time, he came in here, and I decided to operate by incision, which was done. About twenty-four hours after, the patient was seized with vomiting, and hemorrhage took place. I immediately removed the dressing, and applied a compress steeped in cold water, not desiring to plug the wound, because the blood came from the inguinal ring. This simple exposure was sufficient to arrest all hemorrhage.

## TREATMENT OF GOITRE BY THE SETON.

Individuals of a lymphatic temperament, characterized by a soft white skin, rounded form, and mild manners, are exposed to goitre. This disease attacks females more frequently than males, children oftener than adults. The gland which, when healthy, weighed from one to two ounces, often is so enlarged as to weigh from one to two pounds. The determining causes of goitre are, according to authors, numerous. Foderé perhaps admits too exclusively atmospheric humidity, joined to a moist temperature, for the disease appears in many individuals not submitted to these causes.

*Cases.*—In March 1833, two females entered the Hôtel Dieu, one 26 years of age; she had been attacked for several years by a goitre, which embraced both lobes of the thymus. The tumour was large, round, elastic; it commenced as a small swelling, and by degrees attained its present magnitude, being as large as two fists joined together. The tumour, by its pressure, rendered the voice hoarse and feeble; and the obstacles caused to the free circulation of the blood, produced pain in the head, vertigo, &c. The other patient, more advanced in years, had the disease for twelve or fifteen years; it also comprehended both lobes of the thymus. A seton was passed into each division of the tumour, and after a suppuration of several months, it was completely cured. At present we do not remark anything in the skin covering the thymus, except the two cicatrices of the setons. There still remains a small tumour of the size of a nut, hard, and quite insensible, but it has since rested quite stationary. The first patient was treated in the same manner; a seton was passed through the tumour from one side to the other, which gave rise to some discharge of blood and tumefaction of the gland. Seventeen days after

the application of the seton, the tumour had lost two-thirds of its size, and the state of the patient announced that a perfect recovery was not far distant.

I shall take this opportunity of entering into some details concerning the manner of practising this operation, its value, and the effects of certain other agents which have been much employed against goitre. Iodine stands at the head of these last, and for some years bark has been employed with a kind of rage, as if people thought that no goitre ought to resist the application of this powerful remedy. Yet in many cases it failed, and a little reflection might have foreseen this result. Goitre depends on various causes; sometimes it is a simple hypertrophy of the gland; at others a scirrhous alteration; and occasionally it is caused by cysts filled with various substances; it is plain that iodine cannot be efficacious against these different affections, and hence it fails, like one hundred others, as mercury, powdered sponge, &c. It is however but right to say, that iodine has procured several cures. These different results tend to show that the true nature of the disease is not yet clearly known, and that it is desirable to distinguish with care the different forms, which, though externally the same, yet are essentially different in their nature. In the meantime each practitioner may indicate such means as he has found to be useful. A short time after the application of the seton, the tumour commences to fade, and the total removal is effected in a few months; the absorption may even continue after the removal of the thread, and the cicatrization of the wound. When the seton is passed across the gland, a great quantity of venous blood usually continues to be discharged for a short time, but it soon ceases; the flow has some analogy to that which takes place when polypi have been removed from the nares; the means usually employed to arrest this kind of hemorrhages, suffice to put a speedy stop to it. It is also important to bear in mind the situation of the thyroid arteries, when we apply the seton. The remark which we have before applied to iodine, mercury, &c., is equally applicable to the seton, we cannot expect it to cure every kind of goitre; the scirrhous deposits, for example, which are occasionally found in the thyroid, would never be modified by this means, but hypertrophy, cysts, hydatids, &c.,—forms, against which iodine and other specifics so constantly fail, generally yield to the employment of this means.

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## ON PREPARATIONS OF ARSENIC AS REMEDIES AGAINST CANCER AND OTHER DESTRUCTIVE ULCERS.

We have frequent occasions, Gentlemen, to observe certain ulcerations produced by cancer, scrofula, or a venereal taint, whether single, or combined together, which are the terror of practitioners from the inefficacy of most remedies employed against them, and from the obstinacy with which they are apt to return, even when removed by the knife.

Amongst the internal remedies used, we give incontestably the first rank to arsenic, which indeed may be employed also externally; but in both cases with caution and fear, for the least indiscretion, the slightest error, may be fatal to the patient; hence many surgeons have renounced its use, in spite of the manifest advantages which it offers. At present I propose to speak only of the external use of arsenic, leaving the propriety and manner of its internal administration to be determined by further trials. The external use of this remedy has long been known, and enters into the composition of various quack medicines, as the powder of Frere Come, Plunket's powder, the pommade of Hellmund, &c., of which preparations arsenious acid usually forms the base. This poison has also been mixed with a number of other substances, some of which are calculated to impede the action of the remedy, or to render its application either difficult or embarrassing.

In order to avoid these inconveniences, and to render the application of arsenic to eating ulcers of the face, nose, &c., less dangerous and difficult, I have conceived several formulæ which seem to unite many advantages, and to possess a mode of action quite different from those I have just mentioned. One of the first and most inconvenient effects of arsenic is its caustic action, by which the parts to which it is applied are often destroyed more extensively than we desire. The preparations employed by me have not this effect; they simply modify the disordered action. They are either in the form of powder or liquid, and arsenious acid forms the base of both, though we are not to neglect the modifying influence of the calomel, which I always join to the arsenic. The powder is prepared by mixing four parts of arsenic, or arsenious acid, with 96 parts of calomel; the proportion of the former may sometimes be carried to five or six parts. The liquid preparation consists in the simple solution of arsenious acid and calomel in distilled water, or in the formation of a paste with powdered gum. I may remark, that I am in the habit of making

the solution a little stronger than the powder, putting generally in 100 parts, six, eight, or ten of arsenic.

*Case.*—In March, 1833, a young girl, 15 years of age, entered the hospital to be treated for a suspicious-looking ulcer on the lower lip. It was about an inch in circumference; the edges deep and inverted, and the base considerably indurated. The disease had commenced seven years before, and continued daily to increase in magnitude; part of the ulcer was covered by a yellow crust, the rest presented a pretty deep cavity. It seemed to me to have arisen from a complication of the scrofulous and cancerous diatheses, with a venereal taint. The sore was first cleaned by poultices, and the arsenical powder applied, which caused a slight inflammation. In a few days, the paste being removed, we found the surface of the ulcer improved; a second application of the remedy seemed to give rise to some symptoms of poisoning, as the patient was affected with nausea and vomiting. These accidents were combated by a strict diet, and the exclusive use of milk as food; the symptoms soon disappeared, and on the removal of the crust formed by the powder, the ulcer was almost completely healed. Indeed you saw her a few days afterwards in the lecture-room, when nearly every trace of disease was removed.

In similar cases I take care to give abundance of milk to the patient, and place a piece of lint over the sore, giving particular orders that it be not removed until the powder has completely become dry. You have seen me use the same means in the case of a man who was affected with an eating ulcer of the lip and nose, with whom this mode of treatment was equally successful. The manner of applying the remedy is extremely simple. We first clean the surface of the ulcer by poultices, and then touch the sore with a small bit of lint, charged with the powder, so as to cover its surface with a layer of the arsenic, if the ulcer be not large; but when of great extent, it is prudent not to cover more than a third or half, according to circumstances. The solution, or more properly speaking the paste, is applied in the same way with a spatula. The application, after having caused some considerable pain, inflammation, &c., usually comes away at the end of eight or ten days: it should be renewed according to the exigency of the case, until the complete cure of the ulcerated surface is obtained. This commonly takes place in five or six applications, and often two or three are sufficient. This remedy, which I have used for fifteen years, under the two forms described to you, acts not as a cautery, but as an alterant of the diseased surface. I have never seen it produce eschars, or destruction of the part to which it was applied; it is infinitely less adherent than the pastes of Frere Come or of Rousselot, and causes much less pain and tumefaction.

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## GANGLION OTICUM ARNOLDI.

### No. I.—Remarks on the Discovery of the Otic Ganglion;

### No. II.—Description of the Otic Ganglion;

*Read at the* London Medical Association, *Westminster General Dispensary, August 9th*, 1833, (*Dr.* Epps, *Chairman,*)

*By* John Thurnam, *Esq., London.*

### No. I.

In introducing a paper to the consideration of this infant, but (as I trust it will prove) very useful association, it affords me much pleasure to endeavour to promote the advancement of its objects, and at the same time to gratify the great interest which I feel in the subject which I have selected. For were I asked what part of the human frame I considered more admirable in its structure, more beautiful in its arrangement, and, consequently, more attractive as a study than another, I should unhesitatingly reply,—the nervous system.

Let us examine the brain. Let us liken it to the magnificent metropolis of some great and ancient empire, with its spacious streets, its palaces, and its temples, where the mind, as supreme, bears unquestioned and all-powerful sway, and from which city numerous noble roads diverge to every part of her dominions, along which roads are constantly passing a mighty array of agents, commissioned to execute alike her highest and her lowest behests; whilst, from the frontiers of her territories, other agents are returning with incredible velocity, bringing intelligence of every passing event which can in the least degree affect the interest of her throne.

This is a figurative, but a correct description of this wondrous part of the frame, and as such, I hope it will animate us to continue our travels along, and become well acquainted with, all its beaten tracks, and in proportion as we do so, shall we hail with delight the discoverer

who penetrates into a newly-discovered forest, or explores a nameless sea. The names of a Bell, of an Arnold, or of a Tiedemann, will rejoice us.

I sincerely trust, that anatomy, as the very corner-stone of our science, will receive every encouragement and attention from this association.

In offering these remarks, it is with the intention rather of directing the course of the evening's debate, and of raising, instead of settling, the points of discussion. With this intention I shall first make a few general observations on the organic or sympathetic system of nerves in general; then inquire whether a ganglion of this system does not belong to the eye; thence argue the necessity for a corresponding one to the functions of the ear: and, lastly, in order to make the subject complete, shall briefly consider the relations of this part of the nervous system to the three remaining organs of sense—the nose, the tongue, and the cutis.

The system of nerves of organic or vegetable life, or of the great sympathetic, appears to be of primary importance. We find that its nerves are distributed principally to those organs the almost, if not constant, performance of whose functions are absolutely necessary to life. These functions are, respiration, assimilation, circulation, and secretion. Their great importance probably led the Hunter of France—Bichat—to call the ganglia of this system "little brains," thus investing them, figuratively perhaps, with the power of perception. But though this is ingenious, it totally fails to give us any idea of the manner in which these ganglia and their nerves act. And who shall solve the difficulty? Will the ingenious theory of the indefatigable Swan, not badly supported either by pathology, experiment, or reasoning, satisfy us? Can we believe that the impulse of the circulating blood is the constant stimulus to these nerves, and that it is for this purpose that they are distributed to the outer coats of the arteries; that the heart (being the *primum saliens*) and the arteries give activity to those nerves, and that they are thus qualified to act constantly and uniformly on the organs which receive their final distribution? Whatever may be the defects of this theory, it has at least the merit of supposing a cause quite adequate to the effects produced, so far as constancy of action is necessary. However, I fear we shall scarcely adopt this view, ingenious as it may be as a theory, and that it must be acknowledged, that as to the source of the power possessed by these ganglia, we know nothing. It seemed to me necessary to premise this much respecting the sympathetic in general, in order to our properly considering its relations to the organs of the external senses, into which I now proceed to inquire.

Without entering at all into the anatomy of the eye, I shall merely allude to those motions of the iris which occasion a dilatation or a contraction of the pupil, motions which we know to be quite independent of the will. We know that these motions are caused, not by any effect produced on the iris directly by light, but only through the medium of the retina. Now how did the elder anatomists account for any effect produced in this indirect manner? They told us it was by sympathy. But this meant nothing, unless there were a medium through which they could sympathise; and until Tiedemann published his valuable discovery, that the ciliary nerves ramify in the retina as well as the iris, we could not satisfactorily account for it. Well, then, it appears that these ciliary nerves are the agents which, being either sub or superabundantly stimulated through the medium of the retina by the light, cause a corresponding involuntary motion of the iris, which produces either a dilatation or a contraction of the pupil. Mark that I say "involuntary;" for a great excess of light produces a very different and a voluntary motion of the eyelids. Whence do these ciliary nerves proceed, and does their anatomy prove them to be nerves of the system of organic life? We find them emerging from the anterior border of a very small ganglion in the orbit, the ophthalmic or lenticular. Posteriorly we find two filaments leaving it, the shorter of which is traced uniting to the inferior oblique branch of the third or motor oculi nerve, whilst the longer passes backwards, guided by the nasal branch of the ophthalmic division of the fifth nerve; then on the ophthalmic itself, till, lastly, reaching the Gasserian ganglion, it passes downwards to the carotid plexus, which ascends from the first cervical ganglion. This sketch of the anatomy of this ganglion is sufficient to prove that it forms part of the system of the great sympathetic.

Having shown the necessity for these nerves in the eye, the question proposes itself in relation to the present subject, Does the mechanism of the ear require any corresponding set of involuntary nerves?

Like the immediate seat of sight—the retina,—the membranous or nervous ear is seated deeply, having a rather complicated mechanism intervening between it and the air. It will suffice here to ob-

serve, that the membrana tympani appears to be to the ear what the iris is to the eye—the sentinel which prevents an undue access of sound to the internal ear. But here a difficulty presents itself, for Bichat tells us, that it is relaxed by powerful, and rendered tense by weaker, sounds. Now we shall find by this paper, that Savart's experiments prove the reverse. But to proceed, how are these motions of the tympanum effected? Is the true membrana tympani *muscular*, as Sir E. Home supposed? We should incline to say no, when we perceive that there exist certain muscles whose functions appear to be to effect the motions of this membrane. The principal muscle of these is the tensor tympani. We find, then, the greatest analogy between the mechanism of the ear and the eye. We have found a contrivance which can effect the motions of the tympanum, had it nerves corresponding to the ciliary, without which we well know no muscular contraction can take place. We want a ganglion as a nervous centre, precisely corresponding with the ophthalmic, with nerves ramifying with the auditory in the membranous ear, and others supplying the muscles of the tympanum. And all this we shall find in the *ganglion oticum*.

Though the names of parts, expressive of structure and of function, are in every point of view to be preferred to those derived from the name of their discoverer or describer, yet as custom and the authority of Tiedemann sanction the name of G. Arnoldi, we shall gladly associate his name with those of Meckel, Cloquet, and Ribes, the illustrious discoverers of the other ganglia of the organic system in the head. It would be a great service to anatomy, were the translator of the present part* encouraged to translate the whole work, as the relations of the rest of the cephalic portion of these nerves still require much elucidation and accurate description. Indeed, till very recently in this country, i. e., till the publication of the two now most deservedly popular works, the "Dublin Dissector," and Professor Quain's work, many of these ganglia were described as ganglia of the cerebro-spinal system, and their functions quite misunderstood.

It appears from the paper of Arnold, that he regards the other cerebral ganglia of this system as having a relation corresponding with the two other organs of sense in the head,—the nose and the tongue,—as he speaks of the nasal and lingual ganglia. Whether by the "nasal ganglion," he means the *Spheno-palatine* or *Meckel's Ganglion*, I can scarcely decide, though I should presume so. But as the external mechanism, both in the nose and the tongue, is extremely simple, and appears to require adaptation (as in the eye and ear) to external circumstances, we can hardly see the necessity for such involuntary nerves, and neither can we reason physiologically on their function. As, however, the analogy of structure remains, it is probable that the mechanism eluded us from its minuteness.

The submaxillary ganglion, situated behind the gland of that name, is probably the one he means when he speaks of lingual, and may have some such relation to the tongue. Before leaving the tongue I would observe, that that organ is largely supplied with nerves; but I would inquire which is the nerve of taste? Here is an interesting field for inquiry, for it has no nerve which is not possessed by other respiratory muscles. In the present state of our knowledge of the functions of the nerves, I presume we must consider the sense of taste to be that of touch, highly developed.

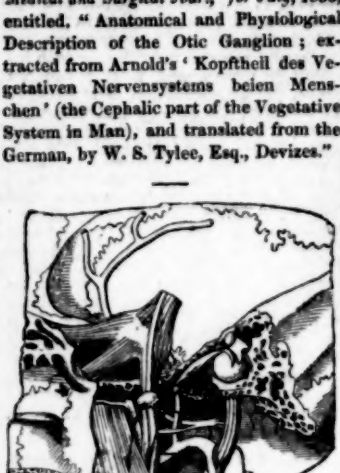
The last of the organs of the external senses is the cutis, the organ of touch. This sense being possessed in a greater or less degree by every part of the surface of the body, accounts for the great number of primary nerves communicating it. It is so important, that the external parts of all the other organs of sense are provided with it; so that it might with propriety be termed a universal sense, but it has, very improperly, been termed "common sensibility," and the nerves ministering to it, "nerves of common sensation." To quote the language of the eminent elucidator of the nerves, Sir Charles Bell, as used at the Royal College of Surgeons, "There is no such a thing as *common nerves* and *common sensibility*. Different nerves have different properties; different parts have distributed to them nerves which bestow, never *common*, but a wonderfully appropriate and peculiar degree of, sensibility."

If nerves of organic life be requisite to the mechanism of the cutis, in order to the due performance of its functions, we must seek for them in the coats of the arteries distributed thereto. We know that they exist in the outer coat of all the larger arteries, and the probability is that they accompany them to their extremest distribution; for these nerves appear to have a universal connexion with the rest of the nervous system.

* See title of paper No. II.

## No. II.

*A Description of the* OTIC GANGLION, *abridged from an Article in the "Edinburgh Medical and Surgical Jour.," for July*, 1833, entitled, "Anatomical and Physiological Description of the Otic Ganglion; extracted from Arnold's 'Kopftheil des Vegetativen Nervensystems beien Menschen' (the Cephalic part of the Vegetative System in Man), and translated from the German, by W. S. Tylee, Esq., Devizes."



The *Ganglion Oticum sive Auriculare*, called also by Professor Tiedemann, *Ganglion Arnoldi*, is situated at the internal side of the third branch of the trigeminus, immediately under the foramen ovale, at the spot where, externally, the nervi temporales profonde, nervus maxillaris, and buccinatorius, branch off, and where the smaller portion or anterior root of this nerve unites more closely with the larger branch, or posterior root from the Gasserian ganglion.

Internally, the ganglion is covered by the cartilaginous part of the eustachian tube and the origin of the tensor palate. Behind, it borders on the arteria meningea media. It has an oval figure, flattened on either side, and a little elongated horizontally, in which direction it measures, on an average, from two to two and a half lines; from above downwards from one and a half to two lines; and in thickness only a quarter to, or, at most, half a line. It is characterized by its reddish colour, verging rather towards gray. It is surrounded by a very fine and delicate neurilema, which is pretty closely connected with the substance of the ganglion. In this envelope ramify its vessels, which, in proportion to its size, are very numerous, and to which it doubtless owes much of its reddish character. These all come from the arteria meningea media, or directly from the internal maxillary and enter its posterior, and partly its inferior, border.

The ganglion is imbedded, particularly externally, in a quantity of cellular and adipose tissue, and by which it is united to the internal surface of the third branch of the trigeminus.

On examining the structure of the ganglion it is found to consist of a reddish-gray ganglionic substance. Numerous white nervous filaments are, however, interwoven with this, which are to be traced, some from the pterygoid nerve of the third branch of the trigeminus, which, on a superficial dissection, is in so close connexion with this ganglion as to appear to arise from it; but on more accurate investigation it is clear that this nerve, soon after its origin, penetrates through and takes up a part of the substance of the ganglion. Others of these filaments are traceable from that branch of the nervus tympanicus of the glossopharyngeal, which I call nerv. petrosus superficialis minor. Many other filaments enter it from the small or muscular portion of the nerv. trigem., and (except where the ganglion is rather distantly situated, when of course they will be longer and more easily observed) they are mostly extremely short and only to be observed when we try to separate the ganglion from the nerve, with which, as we have seen, it is also in close cellular connexion.

Thus it is clear, that the ganglion oticum communicates with the portio minor quinti paris, also with the nerv. gloss. pharyng. by means of the nerv. tympanic, and indirectly by means of the same nervous branch with the facial and auditory nerves. This last connexion is important, and is effected by a filament, which, joining the nerv. petros. superf. min., is to be traced to the gangliform swelling of the facial nerve, situated at its curvature, from which swelling it is also found proceeding to the acoustic nerve.

We have now to describe those nerves which have their origin from this ganglion. They appear soft, reddish, and delicate, and agree in their qualities altogether with the ganglion. The most important, which must be principally attended to, as showing the particular relation of this

ganglion to the organ of hearing, arises at its upper and posterior border, and takes its course along the internal side of the art. mening. med., backwards and upwards; penetrates into that part of the eustachian tube in which the tensor tympani is situated, and ramifies in that muscle. This thread distinguishes itself essentially from the nerv. petros. superf. minor, near which it directs its course. There are other small nerves of the same character, which show still more its relation to the ear. They arise at its inferior and posterior border, and proceed to the bifid root of the anterior auricular nerve from the third branch of the trigeminus. These, probably, communicate with the branches of this nerve, supplying the external auricular canal and membrane of the tympanum.

We thus find, that the otic and ophthalmic ganglions agree very much in situation, form, size, and structure, inasmuch as the former is situated by a similar relation to the third branch of the trigeminus, as the latter is to the first branch. They also each communicate with two different nerves of the animal system, one for motion and another for sensation, by means of branches which they receive from them; for the short but considerable filaments from the small portion of the trigeminus, subservient to the motions of mastication, correspond with the short root of the ophthalmic ganglions, coming from the nervus oculo-motorius, and the long root of the same, which is given off by a nerve of sensation, we find corresponding in the otic ganglion with the nerv. petros. superf. min. coming from the gangliform swelling of the gloss. pharyng. nerv., which is likewise, at least in some degree, a nerve of sensation.

*On the Functions of the Otic Ganglion.*

It is not merely the anatomical character of the otic ganglion in the human subject, and its analogy to the ophthalmic ganglion, so far as it has a relation to the organ of hearing, and especially to the membrane of the tympanum, similar to that which the other has to the eye, and particularly to the iris, that justify us in concluding the otic ganglion to have the same office in the organ of hearing that the ophthalmic ganglion has in the eye.

Researches in comparative anatomy render it also most probable, that the ganglion in question is the central organ for the involuntary motions of the membrane of the tympanum. The result of these researches is,—*First*, That the otic ganglion is only to be found in those animals which have a tensor tympani. As this muscle does not, according to my researches, belong to birds and the amphibials, but is to be found in the mammalia only, so these alone possess the ganglion in question. *Secondly*, These researches teach us with certainty that this ganglion is larger, and more intimately and multifariously connected with the organ of hearing, the larger and more developed the external ear is. Indeed, in those animals in which the ear is very large and moveable, it is double. This I found to be the case in the hare, rabbit, horse, and pig, all of which, and especially the former, have extremely long ears. Those mammalia which have a tolerably developed external ear—as, for instance, the ruminating animals, possess a rather large but single otic ganglion; whilst in those whose external ear is but moderately developed, as the cat, dog, marten, hamster, and rat, the otic ganglion is much smaller. *Lastly*, we find this ganglion smallest and most inconsiderable where there is no external ear, as in the mole, in which it is not found without the greatest care and patience.

From these two points, namely, that the otic ganglion only exists in those animals which have a tensor tympani, and that it is so much the larger, more developed, and more intimately connected with the organ of hearing,—the larger and more developed the external ear is, it clearly results that this ganglion must be considered as the central organ for the involuntary motions of the membrane of the tympanum; for it only exists where there is an apparatus for the tension of this membrane, and is more intimately connected with the ear,—the more numerous are the sounds received by a large and moveable external ear. From this we see evidently, that the tension of the membrane of the tympanum (by which, as we shall presently show, the effect of a too powerful sound on the ramification of the auditory nerve is moderated) is, and must be, so much the more considerable, the greater the quantity of sound received from all directions by the external ear, so varied in its formation.

The difference with respect to the motions of the membrane of the tympanum must first be considered. Those which take place in consequence of an irritation reflected from the acoustic nerve on the apparatus for moving the membrane of the tympanum, are to be distinguished from those which take place from the fluctuation of the air. The latter are the real motions according with this fluctuation; but the former consist more in a simple tension and relaxation of this membrane, which is produced by a too powerful action of sound on the ramifications of the

auditory nerve being imparted by means of the communication of this nerve with the facial, and the connexion of the latter with the smaller superficial petrous nerve to the otic ganglion, which, according to the impressions received, exercises such an influence on the tensor tympani, that the membrane is put into a degree of tension according to the power of the sound, in order to prevent a too violent irritation of the auditory nerve.

It appears to me that sufficient attention has not hitherto been paid to distinguish accurately and decidedly the difference in the motions of the membrane of the tympanum, in so far as they appear in one way as vibrations, and in another as a tension and relaxation of that membrane. Indeed the vibrations of the tympanum produced by sound, have been called automatical motions. But here a signification has been given to the word automatical which does not at all belong to it; for such of its motions as depend only on external influences, and ensue immediately from them, cannot be called automatical; but we can only designate with this name those which are produced under the influence of the otic ganglion by the apparatus for moving the above membrane, and must, doubtless, distinguish them from those motions which consist in vibrations of the membrane, and are produced immediately by the fluctuation of the air.

My anatomical investigations having proved the communication of the acoustic nerve with the otic ganglion, enable us not merely to see in what way sounds, acting powerfully on the acoustic nerve, are imparted to the apparatus for moving the membrane of the tympanum, but also lead us no longer to consider the brain as the organ through which that communication takes place, in those cases at least where the influence of sound is not very powerful. According to Tiedemann's valuable discovery,* branches from the ophthalmic ganglion communicate with the optic nerve and retina; in like manner, also, a thread communicating with the otic ganglion joins the acoustic nerve, and ramifies, doubtless, with it, in the labyrinth of the ear. As in cases where the irritation from light is not too considerable, by the immediate affection of the ciliary nerves, which spread themselves in the retina, and without the mediation of the brain, motions are produced in the iris corresponding with the different degrees of light, in consequence of a reaction of the ciliary ganglion on these nerves. So, also, from the influence of powerful sounds on the nervous thread ramifying with the acoustic nerve, this affection is communicated to the otic ganglion, from which a reaction takes place on the tympanum, and changes equal to the degree of sound ensue. But it seems to me very probable, that when sounds act too powerfully, so that the ear is unpleasantly affected, the reaction may follow through the brain, as it is not merely that we are conscious of an unpleasant sensation, but parts which are under the control of the will come into action; for in such cases we close our eyelids and draw up the under jaw, and thus lessen the area (lumen) of the external auditory passage.

We now have to inquire the reasons of the several communications of the otic ganglion with the several nerves.

I believe the reason of its indirect communication with the acoustic nerve through the medium of the facial to be, that the latter supplies with nerves the muscles of the external ear, and that thus their motions are made to correspond with those of the tympanum. These muscles are, indeed, of slight importance in the human subject, having but little influence on the motions of the ear; but as they are large and important in many mammalia, we must not, for this reason, overlook the importance of this union.

The intimate connexion of the otic ganglion with the third branch of the trigeminus, enables one of its branches, the superficial temporal, supplying the external auditory canal and membrane of the tympanum, to communicate impressions made on those parts, to the otic ganglion, especially as this branch, arising from the posterior root of this branch of the trigeminus, must be regarded as a nerve of sensation.

Its communication with the masseter, temporal, and pterygoid branches from the anterior or motor root of this same nerve (port. min. quint. par.), enables the ganglion to communicate the necessary impressions to those nerves, in order to their effecting a contraction corresponding with that which it produces directly in the tensor tympani, in the muscles of the lower jaw, thus pressing its condyloid process against the inferior parietal portion of the external ear, contracting it a little, and thus impeding the sound.

Its communication with the glossopharyngeal nerve appears to be owing, in the first place, to that nerve giving off a filament supplying the glandulus ceruminosus auris, and anastomosing with the posterior auricular of the seventh pair;

* Zeitschrift fur Physiologie, Bd. I, H. 2.

and, secondly, to the same nerve, supplying so freely, in the form of the nervus tympanicus, the cavity of the tympanum.

We thus perceive, from what has been said, that the otic ganglion, through various communications, has the most intimate relation to the organ of hearing, and that its office, with regard to the tensor tympani, is of the greatest importance. These points, the results of researches in comparative anatomy, and also the analogy to the ophthalmic ganglion, clearly show that this ganglion must be considered as the central organ for the automatical motions of the membrane of the tympanum.

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CASE OF

## TIC DOULOUREUX

CURED BY THE

## "MINERAL MAGNET."

*By* E. S. BLUNDELL, *M.D., London.*

A LADY,* ætat. 53, of a robust constitution, enjoyed a tolerable share of health until a few years since, when she was seized one morning, on awakening, with a violent pain in the left side of the lower jaw, directly under the bicuspid tooth, which continued without intermission for several days. She applied to her medical attendant, who considered it to be a rheumatic affection, the result of an exposure to cold during an evening ride. The remedies employed were, hot fomentations, followed by stimulating anodyne liniments, for the space of ten days, without any sensible mitigation of the patient's sufferings. At the end of this period a physician was consulted; the fomentations were omitted, and leeches were applied, and he prescribed a saline mixture, with Dover's powder. These remedies were persisted in for a fortnight, with no better result than attended the exhibition of the former.

The pain increasing in intensity and duration, spread from the jaw to the ear, and from thence to the biscuspid of the upper jaw, and again across the face to the ear, and from thence to the temple. The agony of the patient at this period was great; she was neither able to masticate, swallow, nor speak, without augmenting her sufferings. The disease being now pronounced a decided case of tic-douloureux, the treatment was changed. Carbonate of iron was administered for the space of twenty days, in doses commencing with one ounce, and gradually increasing to six ounces *per diem*, without producing any favourable results. During the last four or five years, morphia, quinine, belladona, strychnine, turpentine, lobelia, aperients, counter-irritation, and arsenic, were each and severally applied without the slightest benefit.

In July, the patient called on me, and placed herself under my care, in order that I might try the effect of the magnetic treatment. Her pulse was 85; tongue pale and puffy; skin hot and dry; countenance anxious, with an icterial tinge; bowels irritable, with tenesmus after each evacuation; the eyes were glassy, and her general appearance was haggard. She stated that she had not had more than half an hour's sleep at a time for the last six weeks. The pain at each attack was confined to the inner orbit of the left eye, upper and lower lip, temple, and behind the ear.

July the 10th. This morning I commenced the application of the magnet, by passing it over the parts affected, for ten minutes. The patient was sensibly relieved. In an hour the spasms returned with increased intensity for a few minutes. After again passing the magnet, she was perfectly easy for four hours. At 10 o'clock I visited her, and found her free from pain. The application of the instrument was repeated every twelve hours from the 11th to the 17th with the most decided benefit. During this period, a generous and rather stimulating diet was enjoined, and under this treatment the patient's general health and appearance rapidly improved. From the 18th to the 23rd the magnet was only applied once a day, and on the 24th I repeated the application for the last time. The patient returned home on the 25th, and up to the present date has not experienced any return of the malady.

In this interesting case I could reproduce the pain in the nerve, and transfer it from the head to the extremity of the little-finger of the affected side, and *vice versâ*, thus giving a striking illustration of the motion (I had almost said the circulation) of the nervous or vital principle along those mysterious conductors.

13, Orchard-st., Portman-square,
20th August, 1833.

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* The name and address of this lady may be obtained, on application to Dr. Blundell, by any respectable person who may wish a reference to the patient herself.

## MALIGNANT CHOLERA.

### TREATMENT OF ITS ADVANCED STAGES WITH PHOSPHORUS.—PREPARATION OF A PHOSPHORUS PILL.

*To the Editor of* THE LANCET.

SIR,—I should feel much obliged by the insertion of the following in your invaluable journal. I am, Sir, your obedient servant,

W. BATTEN, Surgeon.

Tooley-street, Borough,
14th August, 1833.

Since the re-appearance of cholera in this part of the metropolis, I have been in the habit of employing, with extraordinary success, a remedy, which, as I have neither heard nor read of its application before, may, perhaps, be considered worthy of mention in the treatment of this disease. I mean *phosphorus*. Reflection on the chemical properties as well as the medical history of this extraordinary substance, first induced me to make trial of its effects in cholera; and to illustrate the result I shall briefly mention two or three cases.

*Case* 1.—The first was that of a girl, ætat. 14, labouring under all the worst symptoms, excessive purging and vomiting, intolerable cramps, &c. I first gave her, by way of experiment, a pill, containing half a grain of *phosphorus*; in two hours another pill; and in two hours more two more pills. The result was highly satisfactory. The first pill was administered at eight p.m., and from that time all the symptoms gradually subsided. Next morning the patient was so far recovered as to allow of her being removed home, a distance of two and a half miles, and she bore the journey remarkably well.

*Case* 2.—In the next case the results were still more striking. The patient was a sailor, ætat. 30, and my brother, by whom he was first seen, considered his condition altogether hopeless. To the incessant purging, vomiting, and excruciating cramps, which had existed for some time previously, were superadded all the horrors of collapse, without any abatement in the violence of the primary symptoms. This was certainly the most appalling case I ever saw, and it may be worthy of remark that it was brought on by a dose of salts.

To this man, a pill containing one grain of phosphorus was immediately given and repeated every two hours until four or five had been taken. The effect was extraordinary. From the moment the first pill was taken, the poor fellow began to evince signs of improvement; the vomiting ceased; a slight degree of warmth became perceptible on the surface of the body; the voice, which had been lost, gradually returned; the purging and cramps subsided; no consecutive fever followed; and in less than a week the man was in perfect health.

These results appeared so convincing of the superior efficacy of the remedy, that we determined to follow up its use in every case of confirmed cholera that might thenceforward fall under our care. Since then we have treated a considerable number of cases of the worst description, and, I am happy to say, with uniform success, not having lost a single patient where the medicine could be taken. One instance occurred in which no medicine could be administered, the poor fellow dying within an hour from the first attack.

*Case* 3.—Not many doors from the house in which this happened, a strikingly similar case occurred on Sunday evening last. We saw the patient in half an hour from his first attack, and with difficulty got a pill down his throat. The man was evidently moribund, and in all human probability a few minutes' delay would have consigned him to a fate similar to that of his unfortunate neighbour. The effect of the medicine was really astonishing, and truly gratifying to those around. The patient was soon enabled to speak, and animal heat quickly returned. The medicine being repeated, all the bad symptoms gradually subsided, and next morning the patient might have been pronounced out of danger.

I have now, perhaps, stated enough to ensure for phosphorus sufficient investigation into its merits to determine its value as a remedy for malignant cholera. I shall say a few words on its pharmaceutical preparation, periods of administration, dose, &c.

There can be no doubt that the difficulty of preparing phosphorus into an efficient, safe, and convenient form for exhibition, is the chief, if not the only, reason why it has not been much more extensively used in medicine than it has.

All the various formulæ which have been proposed, with the exception of that of M. Lescot, are decidedly objectionable. The principle of his plan seems good, but the preparation being *fluid*, seems to me ill adapted for administration in cholera.

Seeking to embody M. Lescot's principle of *fixed solution* with that of *moderate solidity*, the following occurred to me as not unlikely to answer my views;—

℞ *Cerumini alb.* 3ss;
*Phosphori* ℈ss.

To be put into a large iron mortar, and thoroughly incorporated by means of pressure and trituration, a sufficiency of water being present to guard against combustion during the process. The mass is to be divided into ten pills, which are to be preserved for use in a phial of distilled water. This is the formula I have used, and without entering into any discussion of its pharmaceutical merits, it will suffice for my present purpose to state that I have found in it a convenient, safe, and efficient medicine.

One of these pills forms a dose for an adult, and should be given every one or two hours, according to the urgency of the case, until four, or perhaps six, have been taken. In many cases, however, three, or even two, doses will suffice, and the cure may be completed by other means. The premonitory diarrhœa may be removed with certainty, also, by other means. It is when the fluids of the body are rapidly draining away, when racking cramps have nearly exhausted the nervous energy, and the powers of life are evidently fast setting in death, that the effects of this remedy have appeared to us most conspicuous, – in fact, so decided and extraordinary, that should the experience of others at all bear out what we have observed in our own practice, phosphorus cannot fail to become the means of disarming this deadly pestilence of much of its fatality.

## THE LANCET.

*London, Saturday, August* 24, 1833.

THE CHOLERA-PREVENTION BILL of last year has been re-enacted by the legislature during the past week, with a few alterations. The changes, although trifling, are, nevertheless, improvements. We trust that the measure will work beneficially for the public, but we much question whether it will be attended with any *immediate* advantage to the profession.

It certainly would appear, that medical practitioners, as public functionaries, are never to be adequately rewarded for their services. The importance of the duties they discharge—the risks they incur in the execution of their professional labours, are not of sufficient weight to be thrown into the scale of compensation. But such omissions on the part of the legislature, cannot be considered as extraordinary, when we see daily, or, rather, weekly, that medical writers denounce as "unprincipled" such men as Sirs WILLIAM RUSSELL and DAVID BARRY, *because* they held office in the Central Board,—because, and, apparently, merely *because*, they occupied stations which were supposed to have attached to them valuable emoluments. It is difficult to conjecture what can be the *objects* of such scribblers—if objects they have any, which, indeed, we very much question. Undoubtedly, their curdled brains, their jerk and-dot style of writing, would indicate that their motives are without blame, as there is not a sufficient display of mind in their abortive reasonings to constitute *intention*. An editor of a medical journal who is, literally, *stupid*, may be likened to a harnessed horse, which has had the misfortune to fall prostrate in the mud. The miserable condition of the animal excites the compassion of the friendly driver and all surrounding spectators. Every one, in turn, attempts to raise the fallen creature, and, in turn, every one receives a splash of mud, or a kick, as a reward for his compassionate exertions. Why this ingratitude? No. It is not ingratitude. It is the result of blindness. It arises from a want of knowledge. If the horse understood the *situation* or the *feelings* of his friends, he would not thus act.

But, our great discoverers of mares' nests have all at once ascertained, "that "the *whole* profession are *unanimously* of "opinion, that the malignant cholera is "not a contagious disease." At the same time they acknowledge that the disease exists as an epidemic. On what grounds are such statements hazarded? None that we can perceive, except the laudable desire of being consistent in the display of

ignorance. In what way do such conjurors proceed in drawing their conclusions? "*A*, *B*, and *C*, have died of malignant cholera. Thirty persons closely surrounded each of those individuals, but not one of them has been attacked by the disease; *therefore*, cholera is not communicable from man to man." Why *therefore*? "Because out of ninety persons who were in the rooms of the three diseased individuals, not one fell a victim to the influence of the principle of infection." Here these reasoners are satisfied; they require no other evidence, and the rule of non-contagion is established. *Why*? we again ask. Because ninety persons who were exposed to the influence of the disease escaped with impunity. We allow this—we allow ninety to three—that is thirty to one—as the ratio; but we have no objection to increase it to five hundred to one; for the argument in proof of non-contagion is just as forcible in one case as in the other, and not more so.

Turn we then to the existence of cholera as an epidemic. What is the cause of the malady in *that* case? Will these scribbling geniuses admit that the disease *has* a cause? If they evince thus much of reason, we suppose they will not deny that it originates either in the earth or the air. Does not the existence of the disease then as an epidemic—does not the source whence the malady is generated—indicate that the poison has a general, and not a partial, diffusion? Yet, in what proportion are the people affected? Is it not evident, therefore, that the argument for the *non*-contagiousness of the malady—which is founded on the escape of every thirty, fifty, or one hundred, persons who have been subjected to the danger of contagion—may be applied still more conclusively in proof that cholera does not originate from any cause which is made to operate through the medium of the atmosphere? It is utterly nauseating to be compelled to notice the absurdities of such would-be logicians. We have often contended that one instance of indisputable contagion* is sufficient to establish the whole doctrine of contagion. Are there not thousands of instances in which it can be proved, beyond the possibility of question or dispute, that malignant cholera has been communicated from one person to another? That the malady is only *rarely* infectious,—that it is capricious in the selection of its victims,—is nothing to the purpose, and carries with it no weight against the *power* of communicability. If, then, there be only *remote* danger from an exposure to that power, is it not prudent to resort to every practice and caution which may have the effect of diminishing the force of the evil? Instead, therefore, of allowing the assertion to go forth uncontradicted, that the members of the profession are "*unanimously*" of opinion that malignant cholera is never propagated by contagion, we contend that an immense majority of those physicians and surgeons who have had extensive opportunities of witnessing the ravages of this appalling distemper, are most firmly convinced that cholera *is* communicable from man to man. Under the sanction, therefore, of such authority, we are gratified to find that the Cholera Bill of last year has been re-enacted; because it will strengthen medical practitioners in the exercise of their parochial and other medical duties, and, further, it will have a beneficial operation, by proving to the public that the Government is in possession of information which shows but too clearly that the deadly enemy is yet at our doors.

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THE Colleges of Surgeons of London, Edinburgh, and Dublin, have presented their "Returns," as ordered by the House of Commons. We have space only for that

* Of course we only use this word as synonymous with "*infection*."

of the respected Institution in Lincoln's Inn Fields. It will be recollected, that the Council were directed to furnish the House with an account of the money which had been received by the College for *diplomas*, granted to persons who were examined from the 1st of January 1823 to the 31st of Dec. 1832; and also an account of the manner in which such sums have been appropriated. It will be observed, that this "order" of the House referred to monies which had been received for diplomas only, thus leaving altogether unaccounted for those sums which may have been paid by "candidates for the office of "surgeon or assistant-surgeon in any re- "giment, troop, company, hospital, or "garrison of soldiers in the service of "ourselves (we quote the identical words "of the charter), our heirs or successors, "or to serve as a surgeon or surgeon's "mate, appointed on board any ship or "ships in the service of ourselves, our "heirs and successors, or any other service "in which we, our heirs or successors, "shall think fit to employ any person to "act in any such capacities." The charter also stipulates that the examiner should receive for such examination, from the persons so examined respectively, such fee or reward as should be allowed by the commander-in-chief of the forces, by the lord high admiral, or by commissioners appointed for executing the office of lord high admiral. They were also bound by the charter to examine the surgical instruments used in the army and navy, and to receive such fee for that duty as the above officers should appoint. Further, up to 1821, the council taxed, at the rate of a guinea per annum, every member who resided within seven miles of the College, and up to the present time they receive heavy fees for all those apprentices whose indentures are executed at the College. Thus they have had several other sources of emolument besides the sums paid for *Diplomas*, and yet what says the Diploma-account alone?

| Year. | Received for Diplomas. | | | To Court of Examiners. | | | Added to the College Funds. | | |
|---|---|---|---|---|---|---|---|---|---|
| | £ | s. | d. | £ | s. | d. | £ | s. | d. |
| 1823 | 6,088 | 19 | 0 | 1,548 | 15 | 0 | 4,540 | 4 | 0 |
| 1 24 | 6,023 | 17 | 0 | 1,527 | 15 | 0 | 4,496 | 2 | 0 |
| 1825 | 7,000 | 7 | 0 | 1,785 | 0 | 0 | 5,215 | 7 | 0 |
| 1826 | 7,437 | 1 | 0 | 1,921 | 10 | 0 | 5,515 | 11 | 0 |
| 1827 | 9,601 | 4 | 0 | 2,451 | 15 | 0 | 7,149 | 9 | 0 |
| 1828 | 8,043 | 0 | 0 | 2,052 | 15 | 0 | 5,990 | 5 | 0 |
| 1829 | 9,644 | 5 | 0 | 2,467 | 10 | 0 | 7,176 | 15 | 0 |
| 1830* | 9,929 | 17 | 0 | 2,520 | 0 | 0 | 7,409 | 17 | 0 |
| 1831 | 6,065 | 17 | 0 | 1,548 | 15 | 0 | 4,517 | 2 | 0 |
| 1832 | 7,625 | 2 | 0 | 1,952 | 10 | 0 | 5,672 | 12 | 0 |
| | 77,459 | 9 | 0 | 19,776 | 5 | 0 | 57,683 | 4 | 0 |

* Year before the assault committed on the Editor and other members of the College.

Thus, in the short period of ten years, the College has received from medical students the enormous sum of *seventy-seven thousand four hundred and fifty-nine pounds*, one portion of which has been divided amongst the examiners (ten in number), while the residue it is stated has been added to the funds of the College, to accumulate, we suppose, a compound interest, that it may be distributed amongst these said examiners with better effect at some future day. In this way are the people of England constantly plundered by the monopolies! With

such a machine actively employed in picking our pockets, how can it be expected that this precious College would act otherwise than by opposing with all its might and influence the cause of Medical Reform? It is now ascertained that this Institution and the Apothecaries Hall have received into their coffers, in only ten years, upwards of *one hundred thousand pounds*, without having offered during the same period, a prize of even one hundred pounds, — without having instituted a single medical Professorship,—without, in short, having contributed in the smallest degree to the advancement of that profession which the charter of George the Third and the Act of 1815 were both framed to support and render useful to society. Can it be possible that a liberal government will lend a willing ear to the suggestions and recommendations of these incorporated pilferers and misers,—these niggards in science, who are incapable of appropriating the monies they receive except to their own pockets, and to the "funds of the College,"—which "funds," be it remembered, are entirely under their own control, and no account of which is on any occasion furnished to the commonalty? If ministers relied on the evidence of such men as these, they would subject themselves to a charge of the grossest duplicity. It is not necessary that they should dip their cup into so impure a fountain.

The Council and College quake, however, at the indignant voice thundered forth by public opinion. The system of extortion totters, and the certificate-mongers are apprehensive of immediate ruin to their trade. Like others, they have acquired knowledge by experience; they have had some foretaste of what professional indignation, when properly directed, can accomplish. Who has forgotten the wanton attack on the honour and reputation of the surgeons of our navy? Who has forgotten the scandalous conduct of the College at the conclusion of the year 1830, and in the commencement of the year 1831? Who can have forgotten how the members of the College, while attempting to relieve their brother practitioners from unmerited odium, were assaulted in the theatre of their own institution, with the staves of a gang of hired ruffians from a police office? They were denied the right of discussing a grievous wrong in their own institution, and were treated by the Council of the College with every indignity which minds, brutalized by habits of avarice and injustice, could devise. The insult was offered to the whole profession, and it was felt and acknowledged as such. If proofs were wanting, it is supplied by the figures now before us.

| | |
|---|---|
| In 1830—the year previous to the perpetration of the atrocious assault—there was received for diplomas..... | £9929 17 0 |
| In 1831 ..... | 6065 17 0 |
| Difference ..... | £3864 0 0 |

It was this falling off which produced the altered, the softened, tone of these insolent gentry,—which induced them to talk of *assisting* in the work of REFORM,—which led to the appointment of a Committee of Inquiry, and, finally, the production of that clever Report, so highly landed by our wise contemporaries, but which we smashed with one stroke of the pen. Talk of *Reform*!—These petty paltry Jacks in office understand not the word; but speak of *Plunder*, and you at once command the whole of their attention.

We trust that there is not one of our readers who will now believe that we have on any occasion overstated the advantages to the College of that atrocious certificate system which we have so frequently denounced. In conclusion we put this question to the Council,—What single service have you rendered within the last ten years to the public or the profession in return for the £77,459 which you have extracted from the pockets of medical students?

### HYDROCYANIC ACID PRESCRIPTIONS.

*To the Editor of* THE LANCET.

SIR,—I have to request the insertion of the following extract from a lecture, as pointing out the influence of the mind upon the operation of medicine, and also as exhibiting, on the part of an apothecary, conduct highly unprofessional.

Yours, in well-wishing,
JOHN EPPS, M.D.
Lecturer on Materia Medica, &c.

89, Great Russell-street,
August 19th, 1833.

"I now, Gentlemen, have to notice a circumstance in regard to this acid (prussic) that you must guard against. It is the prejudice that arises from the use of this acid in poisoning animals, more particularly cats. Many weak-minded persons would be much offended if you were to give them a medicine "used," as they say, "to poison cats." They would not, it is likely, take the medicine, and if they did, the prejudice against it would make them imagine that they were injured by it. I have known several instances of this.

"The advisable plan is to call the acid by its more scientific name, namely, the *hydrocyanic acid*. This they will not so readily understand, and the mystery will, in this case, be beneficial; and, I may add, that as long as the majority of mankind consists of fools, we must have mystery.

"I now shall mention a circumstance which shows either the grossest ignorance or the most wicked disposition on the part of an apothecary. A patient consulted me a short time since for an *affection of the eyes* and a *partial deafness*, for which he had been under the care of the first oculists in London and Edinburgh, but without benefit. I mention this, because the patient was almost tired of trying any other means. Upon minute inquiry, I found that the digestive and nervous systems were much disordered; and I concluded, that by treating these, I should cure the total disease. The result verified the inference. But, in the treatment of the case, I prescribed prussic acid thus:—"℞. *Acidi hydrocyanici* ad formulam domini Scheele gtt xxx." To this ℥iij of *water* were to be added, and the patient was to take a teaspoonful three times a day; having thus only little more than *one* drop of Scheele's formula to take as a dose.

The patient's father took the prescription to his apothecary, and the man had the unprofessional audacity to put upon the bottle the word "POISON." Now, what might have been the effect of this *welcome* information upon my patient and his parents? The patients told me that unless they had had the highest confidence in me, they would not have given the medicine to their son; and acknowledged, that even as it was, they much hesitated. They gave it, however, and benefit resulted. Had these persons been weak-minded characters, I should have been reproached for giving "poison" to their son. I may add, that no excuse for the apothecary can be derived from the simple fact, that the liquid in the bottle was *colourless*, because there were other ingredients beside the water and the acid."

## ST. GEORGE'S HOSPITAL.

CHOLERA.—George Booth (the hospital porter), aged about 35, of full plethoric habit, having been indisposed for a few days previously, with irritability and pain in the bowels, was seized on Saturday, August 10th, at three p.m., with severe spasmodic pains of the bowels, accompanied with purging and slight vomiting. He was sent to bed, and Dr. CHAMBERS and Mr. HUTCHINS, the apothecary to the hospital, saw him immediately. *Calomel* and *opium* were given him, and every other means that art could suggest were tried, under which treatment the stools became more bilious in appearance, and between six and seven p.m. he rallied. This favourable symptom lasted, however, but a short time; he soon grew worse, lingered until midnight, and then expired. He had occupied the situation of porter to the Hospital for some years, and has left a wife and family, to whom we believe the governors of the hospital intend to allow a sum of money.

Many of the hospital patients (indeed all those who are at all under the influence of mercury) have had severe bilious attacks, which have been arrested by the usual remedies of *chalk mixture* with *aromatic confection*, and the bilious secretion afterwards restored by small doses of calomel. The stage of incipient cholera has thus been arrested, and the patients by these means have been restored. Mr. BRODIE remarked, that it was the opinion of competent medical gentlemen, that *all* cases of cholera were preceded for a short time by a diarrhœa. The only cases he (Mr. BRODIE) had heard of to the contrary were among insane patients. At Mr. Warburton's lunatic asylum the patients had been suddenly seized with cholera in its worst form, without any

premonitory symptoms whatever, and the only method of obviating the calamity was, immediately that any affection of the bowels was perceived to remove the patients into a diarrhœa ward, and have them seen frequently (every quarter of an hour) by a medical attendant. Cholera has, we understand, made its appearance also at the Lock Hospital, where Mr. JOHNSON junior is treating them according to Broussais' plan, with cold water for beverage, and leeches over the stomach.

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DISLOCATION OF THE FEMUR.—JACK TOWELS.—Aug. 19th. A man was brought to the hospital, having dislocated the left hip three days previously, by being thrown out of a gig. He was put in the warm-bath, and when Mr. BRODIE arrived at two p.m., he was carefully examined by the surgeons present, Messrs. KEATE, BRODIE, and BABINGTON, when the dislocation was found to be upwards and backwards on the dorsum of the ilium, where the head of the bone and trochanter-major could be plainly felt beneath the glutei muscles. Extension and counter-extension were made by means of jack-towels, and in a few minutes the head of the bone slipt into its socket. The limbs were measured, and no shortening whatever was found to remain. The man was sent back to bed. Mr. BRODIE remarked, that after all, he believed, the jack-towel was the best extensor in these cases; that he never knew them fail in recent cases, and he agreed with Mr. BABINGTON, that "you cannot give the same intelligence to a pulley that you can to a jack-towel!"

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## GUY'S HOSPITAL.

THINGS are in a queer state at this hospital. The surgeons (two of them at least) are generally an hour after the time appointed for their visits, and it must come to some patients' turns to be seen by them about once a week only. How can it be otherwise, when the visit occupies often not more than half an hour, and occasionally is not made at all? We trust that these neglectful gentlemen will not be offended at seeing the truth in print, and hope, at the same time, that an honest surveillance of their proceedings in the hospital will effect some degree of reform in matters of which every unprejudiced student complains.

The large portion of the hospital which we have this week perambulated, affords at present but few objects of interest to the medical practitioner, compared with what so extensive an institution might be supposed to contain. Such cases and occurrences, however, as have more particularly drawn our attention, we will briefly mention. Little things become of note, when one has not great things wherewith to compare them. Our readers will, probably, be glad to have a bit of news from this almost-obliterated-from-the-memory hospital, scanty though it may be.

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ADDITION TO THE LITHOTRIPTIC PERCUSSOR.—To the lithotritists it *may* be agreeable to hear, that a very ingenious proposal has been made by a mechanic of Stowmarket, for superseding the separate hammer used with the percussor, or percuteur. All the world is aware that, at present, the calculus, when held in the claws of the percussor, is broken by blows made with a hammer by the hand. On Saturday, the 17th inst., the mechanic alluded to brought to this hospital a percussor, the manual end of which was inserted in a piece of wood, having attached thereto a hammer, spring, and trigger, designed to be cocked and snapped after the manner of a pistol, the hammer striking upon the sliding portion of the percussor, and thus breaking the object placed between the curved ends. The spring was contrived to carry the hammer forward with six gradations of power, so that if the weaker stroke were not sufficient to effect the purpose desired, a stronger and a stronger, up to the sixth power, might be applied by "recocking" the hammer each time. The highest stroke possessed great force, and was certainly competent to fracture the hardest stone ever formed in the urinary viscus. Previous to a trial on the human subject, the inventor took a small calculus from his pocket, of the firmness common to the ammoniaco-magnesian phosphates, and readily broke it with the second power of the instrument, the first stroke having failed. There was a scale by which the size of a calculus in the bladder, and so, in some measure, the force requisite for its reduction, were indicated to the operator. The inventor had previously, we presume, been to Mr. KEY, by whom he was invited to the hospital, where a trial was now made with the instrument on a little girl (afflicted with stone), aged about eight years. The patient was placed on a table in the sister's room, and Mr. KEY introduced the percussor; but two obstacles to a successful effort arose; for, first of all, the urine escaped so fast, that it was almost impossible to grasp the stone; and, secondly, when it *was* seized, the curved ends of the percussor proved too short to hold it securely. Through want of a practical know-

ledge of the operation, the designer had made the bent portion not more than half an inch in length. Mr. KEY returned the instrument to the man, saying, "that he considered it an excellent invention, but needing to be prolonged at the claws." The man had anticipated, probably, that there would be no occasion at any time to fix the instrument while operating, as it snaps and strikes with great precision. Mr. KEY, however, said that he did not consider it would supersede the necessity for the bed (the *lit rectangle*), which is at present employed, and to which the existing percussor is fixed. He also told the pupils that the lithotriptic instruments were, unless great caution was used, dangerous instruments,—very liable, when the urine escaped, to catch the coats of the bladder, and that in the present case he at one moment distinctly felt a part of the bladder between the claws. The man then departed, intending to alter the instrument.

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FRACTURES OF THE PATELLA.—Curiously enough, there are three cases of this description, all of a row, at present in one of the accident wards, two produced by the action of the extensor muscles, and one by a fall from a hop-bag, the man coming on his knee. The man says it was a *bitter* accident. It is, of course, known to all medical men, that no case has as yet been related in which osseous union has taken place in this kind of injury, ligament being invariably the intervening bond of union between the fractured portions of bone. Mr. B. COOPER, in going through the wards, stated that he considered the want of osseous union to be the cause of the envelopment of the bone with tendinous structure, the periosteum being ruptured; and he accounted for this by saying, that one set of vessels supplied the muscles and tendons, and another distinct set the bone and periosteum. To further illustrate this opinion, he adduced cases of fracture of the olecranon, in which the same kind of union takes place. This is to us a new doctrine. Mr. COOPER'S own, probably. Query, also, has the *patella* any *proper* periosteum? The cases are doing well, and gave occasion to some well-deserved praise of the dresser (Mr. Roberts) from the surgeon, for the attention paid to them.

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DISLOCATION OF THE HUMERUS.—Strolling along, we (surgeon and four pupils. Surgeons should be punctual in their visits) came to a bed where lay a man with this dislocation. The surgeon seemed to be fresh from some discussion on the subject, and seeing that he had such a case in the ward, eagerly sought for information on the topic. Addressing Mr. BABINGTON, the dresser, Mr. COOPER immediately inquired how many cases of dislocation of the humerus, he (Mr. Babington) had seen in the hospital during the three years he had been there. Mr. BABINGTON hesitated for a reply, but at length said, that he had witnessed two or three cases, not more. Mr. COOPER. "Ah! that is very few." Mr. BABINGTON. "Perhaps I did not see all, but I can recollect only those." Mr. COOPER. "And what kind were they? Did you ever see one in which the bone was dislocated forwards?" Mr. BABINGTON. "Yes." Mr. COOPER. "Was the diagnosis simple? Did you feel the head of the bone under the clavicle?" Mr. BABINGTON. "There was great swelling, and I could not discover the precise situation of the head of the bone." Mr. COOPER. "I differ from Sir Astley in this respect, for I do not think the head of the bone can be plainly felt, as there is generally very great tumefaction of the parts, and you cannot rotate the bone, but the coracoid process is to the outer side, and the elbow is thrown from the side, and at the same time is carried backwards." Mr. BABINGTON said, that one of the cases was dislocation backwards on the dorsum of the scapula beneath the spine.

In the same ward there is a case of dislocation of the astragalus, without fracture of the fibula, which is regarded in the hospital as a very interesting one. When it has progressed a little farther, it may deserve a report.

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HYDROCELE—HOSPITAL OFFICERS.—A case of hydocele having presented itself, Mr. COOPER called for a candle, and in order the better to see the phenomenon, retired with the patient into the corner, remarking, "that they were *obliged* occasionally in the hospital to do a little hole-and-corner business." The joke was much enjoyed. His subsequent clinical remarks on the case amounted to this,—that the hydrocele seemed to belong to the species termed *congenital*, the swelling extending very much up the chord. The hydrocele had, perhaps, communicated with the peritoneum, the communication having afterwards become obliterated. The transparency in the present case was considerable, and the shape well marked. It was pyriform. Mr. COOPER then ordered the man to be tapped by Mr. BABINGTON. Whether Mr. BABINGTON will order somebody else to do it, we know not. The duties of the medical officers and attendants at the Borough Hospitals are not quite so clearly defined as it may

strike some persons they should be. *Et. gr.* No. 2. About a fortnight since, when going round the wards of St. Thomas's Hospital, the physician (Dr. ELLIOTSON) and on-lookers were struck in a heap at hearing it announced, that the apothecary (Mr. WHITFIELD) had refused to electrify any more patients, "as he had no time and could not attend to it." The consequence was, that several cases in the treatment of which electricity was the principal agent, and which were fast mending thereunder, had been obliged to forego the remedy for some days. The Doctor seemed to think, that, notwithstanding this refusal, it was the duty of the apothecary to comply with the medical directions of the physicians, and he accordingly promised to see to it. At the next visit, he inquired the result of his remonstrance, when the patients replied that the apothecary still refused to electrify them, but had told the *surgeon's dressers* to do it! The dressers, however, first of all, knew not how; and, secondly, had they known, did not think that any part of their duties (if *duties* in the hospital they had any at all) could be required in the *medical* wards. Hence, the patients still went un-electrified. Dr. ELLIOTSON said he could not help it; he had spoken to the powers that be on the subject, and at any rate should continue to *prescribe* electricity. Another week arrived, and the apothecary was still firm as a rock. But now the apothecary's apprentice had undertaken the task. Should his arms also tire, the treasurer may next be willing to take a turn at the machine. The obstinate physician may eventually be brought to discontinue ordering such an out-of-the-way remedy as electricity. Pills and mixtures would give far less trouble. Hospital servants must be paid for their labour, and an institution with no more than forty thousand pounds a year belonging to it cannot afford to electrify.

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SWELLING OF GLANDS BY SYMPATHY.—There is in one of the upper wards at Guy's, a case of inflammation extending along the absorbents, and affecting the glands in different situations, showing this extension and affection in a very distinct manner. The patient, a boy, James Price, aged 16, an assistant in a hatter's warehouse, fell from a chair and injured himself in the groin about eight months since. The first token of disease which he experienced was an enlargement of the glands about the neck, which then extended to the glands under the axilla, and thence proceeded along the absorbents to those of the groin, the former being considerably and the latter slightly swollen. At present the swellings of the neck greatly obstruct his breathing, as they have done for the last two months, so that he is occasionally in danger of suffocation. He is much emaciated in every part but the face, which, from its immense double-chin appearance, presents the look of a very old head on very young shoulders. The case will probably afford an interesting one for a future report. He was admitted to the hospital Aug. 7th, and was ordered as follows:—*Iodinæ* gr. j, c. *potassæ hyd.* gr. x; *Syrup. Papav.* ʒss; *Aquæ* ʒviii. Sumat coch. j. amp. ter die.

8th. Adde *Sp. æth. sulph.* ʒss n. n. dos mict. 9th. Augment. *iodinæ* ad gr. ij, vice gr. j. 12th. Perstat. 15th. Perstat. Beef tea, and arrowroot. Two eggs a-day.

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## WESTMINSTER HOSPITAL.

### NOTE-TAKING.—PRIZE FOR THE STUDENTS IN SURGERY.

AFTER the examination of the varicocele patient (page 669), Mr. GUTHRIE lamented that no surgical case-book was now kept. Formerly, he observed, some attempts were made, by certain pseudo-industrious pupils; but they soon flagged, and presently abandoned the task. Here one of the medical governors (Mr. EDWARDS) suggested to Mr. GUTHRIE that he should supply the pupils with a motive, by giving a prize to the most industrious and able historian of cases, and which prize should be publicly awarded. Mr. GUTHRIE replied that he had done so two seasons ago, but no student availed himself of the offer. After some little further conversation, Mr. GUTHRIE declared, "that the student who should produce, at the conclusion of the next winter session, the best case-book, should receive a present of books to the value of five guineas; and if the cases were very well drawn up, he would double the prize." The following conditions were then determined upon by Mr. GUTHRIE:—1. The case-book of each candidate must be of quarto size; 2. It is to be kept continually in the wards; 3. It is to be open to everybody's perusal; 4. Any candidate who shall remove his case-book from the ward, and *elaborate* the cases in his own apartment, shall forfeit his claims.—This proposal excited the approbation of all present, and produced a great "sensation" amongst the students, several of whom have declared their intention of competing for the prize. Mr. GUTHRIE's example should operate upon his lethargical chirurgical colleagues, for

two smaller additional prizes would afford a gradation of reward, and constitute a threefold stimulus to the industry of the rival historiographers. Many of the aspirants expressed themselves at a loss for a good method of drawing up cases; and the want of this information must be acknowledged to form an awkward hiatus in the curriculum of a medical tyro's education. We have not met with, and we do not believe there are extant in print, any very plain, simple, and appropriate directions for this important part of the student's exercises. The young clinical inquirer who is anxious to record his own observations consequently finds, that in his first essays, he is like a mariner at sea, without a rudder or compass, and he knows not at which of the numerous points of observation the circle of his narrative ought to commence. Narrative, whether in prose or verse, is essentially the same mental operation. Its design is to convey to the reader or auditor, a knowledge of the subject by the closest and most natural associations; and this proposition is not at all affected by the nature of the subject; it applies as completely to the humble plot of a medical case, as to the proud projection of an epic fable.

> Semper ad eventum festinat, et in medias res,
> Non secus ac notas, auditorem rapit,—

is a rule equally incumbent on the medical tyro and the Castalian votary. The argument of a medical case, like the action of a poem, naturally divides itself into three stages:—1st. The narrator should dash *in medias res*, and describe the present state of the patient; 2. He is to form the episode, or trace the past history of the patient's health; 3. He is, *festinare ad eventum*, to relate the progress of the case as briefly and succinctly as possible. To fulfil any of these intentions completely, requires considerable skill, which can only be acquired by reflection and practice combined.

1. In sketching the actual condition of a patient, it is proper to begin the description with that organ or function which is most obviously deranged, and to proceed to that which is most intimately connected with the first naturally, or which exhibits the most palpable morbid sympathy. In this way every function is to be examined, and every deviation from healthy action observed. This is the stage at which the tact of the artist is most strikingly evinced. If the outline be traced by the hand of a master, and every symptom arranged according to its due dependence, the portrait will be as vivid and faithful as any that ever emanated from the chisel of Phideas or the pencil of Angelo.

2. A satisfactory development of the previous history, supposes a pretty extensive knowledge of causation, whether predisponent, proximate, or exciting, and sufficient shrewdness to investigate and recognise the circumstances and relationships that may have tended to modify the constitution of the patient, and the character of the malady. The manner in which this part of the task is accomplished, will depend as much upon the previous knowledge as upon the acute observation of the student.

3. In the final stage, exactness is the chief quality required. The historian having obtained a correct conception of the disease and its causes, has but faithfully to record its progress either to convalescence, incurability, or death, having a care, however, as far as possible, to observe the same order in proceeding from organ to organ and from symptom to symptom as in the antecedent stages.

The following axioms may, peradventure, be useful as general rules to the student.

1st. The narrator has in the great majority of cases only to do with the facts of the case; the *reflections* should be left to the reader.

2. The language should be purely descriptive, and all hypothetical terms should be repudiated.

3. In the inquiry into the state of a patient, it has been recommended, that every function and structure should be carefully scrutinised. It is not, however, necessary to *note* every step of the investigation, or to describe the healthy functions, unless the exemption of any particular part or function from disorder, be contrary to the general habitude of the disease. It is understood that parts not mentioned are healthy, or remain as described in the previous notation.

4. The youthful artist must not be too artificial in grouping his symptoms; he must allow some scope to the natural flow of his ideas, for after being accustomed to contemplate disease, he will find that the most important symptoms make the deepest impression, and a graphic and striking arrangement will be formed almost without an effort on his part.

5. "Brevity is the soul of wit," and conciseness the quintessence of case-taking. The best form of case is that which is called aphorismal, in which there is a great deal of ellipsis. This requires nicety in its management. A good rule is for the writer always to fill up the sentence in his own mind, by which means he will ensure a grammatical accordance between the words written and the ideas meant.

6. In the selection of terms, the very

reverse of the epic rule is to be observed, the plainest and most humble words are always to be preferred, and the phraseology of the patient, as far as possible, adopted. For plain rules to make a comprehensive enumeration of symptoms, we refer the pupil to a lecture delivered at this hospital by Dr. EDWARDS, and published in No. 426 of THE LANCET, October 29th, 1831.

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VOMITING OF A FLUID CONTAINING UREA, AND HAVING THE SENSIBLE PROPERTIES OF URINE.—DIGRESSION ON LIGATURE OF SUP. THYROIDEAL ARTERIES; SLOUGHING OF THYROID GLAND, AND CURE.—SIR ANTHONY CARLISLE ON THE PHARMACOPŒIAS.

Jane Snellgrove, a delicate female, nineteen years of age, recommended to Mr. WHITE by an apothecary in Lambeth, was admitted under Dr. BRIGHT, on the 25th of June, 1833. She has a fair complexion, yellow hair, and light blue eyes. The symmetry of her frame is elegant, and the skin nearly transparent. The capacity of the thorax quite normal. The breathing is much accelerated. Seventy respirations per minute, and unequal. The alæ nasi expand widely at each inhalation. There is acute and nearly constant pain in the thorax beneath the right mamma. Percussion elicits laudable responses in all regions. The sound of the respiratory murmur is much enhanced, resembling nearly the noise of a bellows. She has a slight cough, and some resonance is produced by it over the superior half of the anterior aspect of the chest. The action of the heart is very quick and frequent; the impulse of each systole is stronger than natural, but no indication of morbid change of structure is given out. The voice has entirely gone, the lips and the thorax move, but no sound is heard. There is severe but variable pain in the loins and in the abdomen, as well as tenderness of this last region. The bowels have usually been sluggish, the appetite indifferent, and digestion feeble. Severe pain of head darting from the sinciput backwards has occasionally intervened, but this has always been variable in degree, and sometimes has disappeared altogether. The mammæ are not very fully developed, but the mammillæ are of unusually large diameter. They are of the proper colour, but form soft projecting puffy tumours. There is no secretion from them. The catamenia never appeared but once, and that was full three years ago, when the quantity was very small, and their suppression has been coeval and concomitant with the morbid symptoms described. Once or twice a week she has been in the habit of vomiting some ounces of a fluid having the sensible properties of urine. Several of the pupils, and the two nurses of the ward, have often witnessed this phenomenon. Her ordinary urine is of natural character, but very limpid, and for the last three months she has been unable to expel it by natural efforts, being obliged to have recourse to the catheter. Her pulse is 140, soft, and pliant.

July 30. Pursuant to a plan adopted by Dr. ROE, cards are placed over the bed-tickets of the *medical* patients, and on which are inscribed the medicines ordered for them, and the date of prescription. On the ticket of Jane Snellgrove we find the following miscellaneous congeries of remedies. *Leeches* to the abdomen; *castor oil*; *Rufus's pill*; the *submuriate with aloes*; the *submuriate with jalap*; *turpentine injections*; *digitalis*; *croton oil*; *carbonate of potass*; *kino*; *opium*. The opinion derivable from a consideration of these pharmaceutical hieroglyphics is, that the object of the physician was to subdue the cachexy of the girl's constitution; in the first instance by augmenting the alvine secretions, and subsequently by reducing the frequency and irritability of the pulse. These measures, however, were not eminently successful; the symptoms of the patient continued undiminished, and diarrhœa occurring, rendered a recourse to kino and opium needful.

Aug. 3. The diarrhœa has been corrected. She has some tenderness of abdomen, and she presents the same appearance as when first introduced into the hospital. A quantity of the fluid vomited was exhibited to the pupils. It was of a dark-brown colour, and emitted a strong urinous odour, it possessed but a very insipid flavour, and paper stained with litmus was tinged red, showing the presence of free acid. Some of the fluid that had been kept in a phial for a week had become decomposed, and indicated a copious formation of ammonia. Dr. Edwards stated that the specific gravity of the fresh fluid was greater than that of distilled water, that it contained a small qaantity of albumen, and that when treated with nitric acid (after evaporation), it afforded a plentiful supply of the radiated crystals characteristic of nitrate of urea.

This day the patient was visited by Sir ANTHONY CARLISLE, in the course of his circuit. He addressed several questions to the girl and the attendants (pupils as well as Levites*), from the replies to which

* Vide Methodus Barrometrica Westmonasteriensis; Auctore Reverendo P. J. W. Clerico discentiente et secretario. Excudebant typis suis G. H. Rocus Alcockus, et Socii. Lond. CIↃIↃCCXXXIV.

it appeared that the patient had really vomited the urine exhibited, and that there was no imposition. He then said he considered the case as very extraordinary. The Knight was afterwards led (we know not by what association) to relate a case of goitre that occurred many years ago in his own practice, but although this connexion was not obvious to common observers, the apparently instantaneous transition was, doubtless, the sequel of some long train of thoughts, which we may easily imagine to take place in the vivid and varied mind of this gifted surgeon. "Many years ago," quoth the Knight, "I was called by an eminent apothecary in Hammersmith to attend a woman with a very large bronchocele. It was, to speak without exaggeration, the size of the largest melon. Upon examination I found the two superior thyroideal arteries were very superficial—in fact, their pulsation evinced that they were immediately under the skin. This was too tempting an opportunity to lose, and I accordingly tied them. The third day after applying the ligature, the upper part of the tumour began to slough, and I was much alarmed at this circumstance; but my pharmaceutical colleague, who was a very clear-headed clever man (and who is now many years dead, poor man!) assured me the woman would do well, for he had seen a similar case end favourably. We involved the tumour in a large bread-and-water poultice, and to my infinite surprise, in about ten days, the entire gland rolled out (a large globular slough) into the poultice, leaving a spacious integumental bag behind. This healed up in a few days, and the woman enjoyed perfect health for ten years afterwards, experiencing no inconvenience whatever from the loss of her thyroid glands." Mr. WHITE, who accompanied Sir ANTHONY, declared himself gratified by the recital of this case, for he recollected (being at that time Sir ANTHONY's pupil) dressing the woman's throat, but he had never heard the sequel of her history.

At this time the attention of the class was arrested by a cacoethic case of Mr. WHITE, where the elasticity of the patient's constitution was very feeble, and one of the gentlemen remarked, that no formula in the Pharmacopœia or out of it would produce any effect on that disease. On hearing mention of the *Pharmacopœia*, Sir ANTHONY sharply turned round and irefully observed, "The Pharmacopœia is a most perfect piece of humbug, and what better could you expect from the imbeciles who concoct it? The getting up of this precious formulary is always left to the two junior censors, who on these occasions *touch* on an average 150*l.* each; for the apothecaries and chemists are compelled, by an Order in Council, to compound according to the College mandamus, and consequently to purchase the censor's book. This turns out to be a good thing for these juniors, and they have therefore an interest in renewing the Pharmacopœia as often as possible. I recollect as many as six Pharmacopœias in my time, and the names are changed in every one of them. This love of mutation introduces great confusion into the archives of medicine, and makes the prescriptions of one generation unintelligible to the next; for example; I recollect what the chemists now call the *proto-chloride of mercury*, to have been called by the following appellations,—*aquila alba*, alias *mercurius dulcis*, alias *hydrargyri muriat. mitis*, alias *calomel*, alias *hydrargyri submurias*; and if they go on changing with the changes of chemical nomenclature, we shall have fifty other *aliases* for this one medicine. I have always thought that the names of medicaments should be entirely cabalistic and arbitrary, or should have reference to their physiological operation. I would recommend a grand congress of all the physicians of Europe, in order that they might jointly deliberate and adopt some intelligible principles of nosological as well as pharmaceutical nomenclature. These censors, too, have not only the unrestricted power of christening with ugly names the different medicines, but they can let in or kick out any that they please, and this they have done with a vengeance, having excluded some of the most effective preparations and materials, and admitted others that are perfectly inert, and having miserably maimed the efficiency of many that remain. Some years ago the *tinctura humuli* was heralded *ex cathedrâ censorum*, and what do you think was the reason? Its efficacy as an anodyne or a narcotic? No; the father-in-law of one of the censors was a hop merchant!"

Aug. 10. Jane Snellgrove, having experienced some cerebral irritation, she had a lotion applied to the head, and antiplethoric remedies. She is a little relieved. She has vomited urine once since last notation.

13. Being dissatisfied, she is discharged from the hospital.

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### SCROFULA.—A MISTAKE.

Aug. 10. Mr. LYNN brought forward for exhibition Henry Abbott. ætat. 22, a tailor from Somers Town, the young man whose case, and the consultation upon it, were noticed at page 643, No. 519, of THE

LANCET. Mr. LYNN had amputated the other diseased finger (*digitus medius manûs dextræ*), and both the stumps were healing rapidly. The irritating cause being removed, a remarkable change for the better had taken place in the general appearance and health of the patient; his colour, instead of resembling that of putty or lead, had assumed the characteristic hue of wholesome human flesh. His appetite had returned, he slept well, and it was evident that Mr. LYNN's sovereign pill and other means were working a radical reform in the patient's constitution. Our venerable Nestor exhibited no little self-complacence on the occasion, and alluded to a report relative to the case in THE LANCET in the following terms. We give Mr. LYNN's observations in his own words, and in his own discursive and dramatic manner. We are anxious to be exact in our communications, and insert with pleasure, therefore, the subsequent correction:—"Now there is that LANCET man has been attempting to tell a story, without knowing the rights of that story. If he was here I would tell him the rights of it, at any rate I will tell them to you. He says that I considered the case of Henry Atkins to be one of fracture; now in that he was perfectly wrong, the matter of fact is this. I was going round the wards, and observed the little boy Atkins in one of the beds; I went up to him, and being told it was considered a case of dislocation, I laid hold of the boy's limb, and rolled it outwards. This I did with comparative ease. I then said there is too much mobility here for dislocation. At that moment I first observed Mr. GUTHRIE's name on the lad's ticket, when I immediately said, 'Holloa! I can have nothing to say to this case, it belongs to the *great man*, I shan't examine it any more, I retract what I have already said, and I say nothing. Now I pronounced no judgment in this case, I merely expressed a conjecture; and the reporter has represented a mere random shot as a deliberate aim." The reporter states, that the belief of Mr. LYNN expressing a judgment that the case was "fracture of the thigh" was generally entertained, but it now appears that Mr. LYNN made no serious examination of it.

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SYPHILITIC ULCERATION—MR. GUTHRIE'S "UNGUENTUM INFERNALE."

Helen Brando, ætat. 30, was admitted 8th of July, 1833, with ulcerations and warty excrescences between the nates, in the perineum, over the labia and nymphæ, and extending into the groins. She was married about thirteen years ago, but has had no offspring. About twelve years since she was infected by her husband with syphilis. She had chancres and buboes, and was treated with mercury. The buboes suppurated, and she was, altogether, a year laid up. Five years after this first attack she had a lichenous eruption, which was got rid of by ABERNETHY's alterative treatment. After that occurrence she enjoyed very good health until about a year past, when she experienced an attack of icterus. From this she recovered slowly, having obstinate dyspepsia. During the decline of this disease the patient became conscious of the presence of hemorrhoids, which gradually increased in severity. They were external, and produced a great deal of irritation. In the neighbourhood of the piles, warty growths became visible about three months ago; they spread over the nates, vulva, and pubes, became inflamed, and ulcerated. The ulcers assumed a fistulous burrowing character, and the general health became unfavourably affected. The topical remedies have been, emollient poultices, fomentations, and simple dressing; and the constitutional applications, sarsaparilla and oxymuriate of mercury, supported by good living. The oxymuriate having been continued some time, produced diarrhœa, which was connected with chalk and opium. Under this discipline the woman's health improved. A sloughy tunic has been thrown off the surface of the ulcers, which are very deep, and extend into the muscles, and the pus is laudable. The edges of the ulcers are prominent, but the granulations assume a healthy character, and promise to fill up the chasms. The patient's colour is improved, she gains flesh and fat, and her appetite and digestion are good.

To-day (Aug. 10) she was seen by Mr. GUTHRIE, who proposed to treat her topically with the following corrosive ointment. Take of

*Oxymuriate of quicksilver*, a drachm and a half;
*Spermaceti ointment*, half a drachm. Mix and form an ointment.

Mr. WHITE objected to the severity of this proceeding. "Such treatment," he said, "was of the same outrageous character as those cruel systems, the principle of which, according to Sir ANTHONY CARLISLE, was 'to cast out devils through Beelzebub the prince of the devils,' the remedy being worse than the disease." Mr. GUTHRIE replied that that might be true, but there was a woman some time since in the same ward, who, after suffering for years with ulceration in the nates, and trying every remedy in vain, was

finally cured with his corrosive ointment. Mr. WHITE thought that the poor woman had had a narow escape. Mr. GUTHRIE, on the contrary, averred it to be an excellent case. She suffered very little, he declared, and was cured in a wonderfully short time. He said he would collect his notes of the case, and on the ensuing Saturday would endeavour to give the students a clinical lecture on the subject.

Mr. WHITE desired Helen Brande to continue the use of the sarsaparilla in large quantities, and to apply linseed-meal and bread poultices to the morbid parts. She is allowed wine and porter in liberal quantities.

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### VARICOSE VEINS.

In the same ward the visitor's attention was drawn to the case of Maria White, who had varicose veins. She was 32 years of age, unmarried, and never had any children. She was a cook by profession, and, consequently, had a great deal of standing. She had a sister similarly affected from similar causes. The varicosity is at present confined to the vena saphena major, and its tributary branches, which are much enlarged on the inner side of the thigh and leg. By Mr. WHITE'S permission Mr. HERBERT FINCH had applied the tincture of iodine in the course of the vena saphena major, and thus formed a circular plane of counter-irritation. The object of this topical application is to effect an obliteration of the venous tubes, and this certainly appears nearly, if not entirely accomplished. There is evidently contraction of the area of the vessel at the point where the remedy is used, and a diminution of size in the varices above and below. Maria White has been afflicted with this malady for two years, Her health in other respects is unimpaired. Mr. WHITE holds the following theory or hypothesis with regard to varicose veins. He says that they have "changed their functions entirely. Instead of being veins they are arteries, and bring blood *from* instead of carrying it *towards* the heart. This is chiefly due to the breaking down of the valves. Blood taken from a varicose vein is much more florid than that taken from a healthy vein." Poultices are now and then used to mitigate the severity of the tinctura iodinei. This case is one of the subjects to be handled in the clinical lecture with which Mr. GUTHRIE'S mind is now pregnant, and is expected shortly to be parturient.

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## MEDICAL REFORM.

*To the Editor of* THE LANCET.

SIR,—The bold and manly manner with which you have always advocated the cause of medical reform, entitles your journal to a degree of respect which no other publication, I believe, has any equal right to claim. By your praiseworthy endeavours, the corrupt few are now in a state of fermentation, and the London licentiates themselves have at length entered the field. But when the battle is won,—as won it must be,—by whom is the triumphal car to be conducted? If we may judge from an imbecile would-be organ of the licentiates, the *London Med. and Surgical Journal*, the perusal of which, by-the-by, I have relinquished for many months, on account of its many inconsistencies, great contradiction appears to exist among those gentlemen upon this very important subject.

Thus, in the Number for January 26th, they say, let the members at large (of the Royal College of Physicians) have all equal privileges; "Let all silly and foolish distinctions cease; let the censors be men of weight and experience; let the *examinations of regular graduates be abolished*, as in the Edinburgh College of Physicians, and then will every physician in the metropolis, and in Ireland and Scotland, respect and support the College." This, indeed, breathes of the spirit of the times. But in the Number for February 23rd, there is another kind of sentiment, as if proceeding from the barbarous shores of Russia, and, being altogether at variance with the previous demand, shows how much some of their number are still imbued with the old leaven of corruption and monopoly. There it is proposed, "That the diplomas granted by Oxford, by Cambridge, by Dublin, by Edinburgh, or by any school (British, no doubt, as specified in the new regulations of the worshipful Company of Apothecaries), should only be received as testimonials, that the candidate has undergone a proper education, and is fitted for examination"!!!

Can such be really the plan of reform contemplated by the London licentiates now struggling for equal privileges or fellowships? Let us suppose such a reform obtained, and that a physician or surgeon who has received his degree at one of the first Universities in Europe, perhaps in the world,—say Paris,—wished to become connected with their reformed College. Under what reasonable pretence could they require him to be examined by their junta? Must not such proceeding

appear to any enlightened mind to be no better than an insult? For, in order to obtain his degree, he has already been obliged to submit to *six* scorching examinations before a public assembly, besides the *previous examinations* to obtain the diplomas of Bachelor of Letters and Bachelor of Sciences. And is this physician's or *surgeon's* (for they are equal) hard-earned diploma only to fit him for an examination at the London *reformed* College of Physicians. Such is exactly the system at present pursued at St. Petersburgh, and what consolation must it afford the serfs of the "Northern Bear," to hear that free-born Britons, boasting of so superior a degree of civilization, think of following their example!

Of all the plans yet devised for medical reform, I must say, that that of the LONDON COLLEGE OF MEDICINE appears to me the best. Parliament, by immediately granting that institution a charter, would undoubtedly save themselves and the profession an immense deal of future trouble; for, by this means the abuses so long and so justly complained of, would of *themselves* soon die a natural death. Permit me therefore to conclude by wishing the greatest success to this new College of Medicine. I am, Sir, yours, &c.

MEDICUS.

London, Aug. 12th, 1833.

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## SUBJECTS AT THE LONDON HOSPITAL.

*To the Editor of* THE LANCET.

SIR,—I am told by two of the medical officers of the London Hospital, as well as by Mr. Reed the senior surgeon to Whitechapel parish, that my observations relating to the price of subjects in my letter of last week are likely to be misunderstood. Lest this should be the case, I must solicit a small space in your next number for this note. The pupils of the London Hospital for years previous to the Anatomy Bill passing, paid four guineas for a subject, but, *considering how they were obtained*, Mr. Andrews always said that they (the pupils) ought to have them for nothing, or at least that a small sum merely should be given to the procurers. I am aware that I may be told that we were always better supplied, and at a cheaper rate, than any other school in the Metropolis; but to this I would answer, Point out an establishment which has possessed such facilities of procuring bodies as we have had here. Since the passing of the Anatomy Bill, Mr. Hamilton and Mr. Adams called the pupils together, when it was agreed that two guineas should be the price, which I believe is the regulated charge throughout the Metropolis. Mr. Andrews, however, strongly objected to it, and said that he considered the pupils ought to have them for nothing. Now, Sir, in Whitechapel they never receive a farthing for a body. It is the same in Mile End Old Town, and two or three neighbouring parishes, and surely the expense of removals, burials, &c., cannot under such circumstances amount to much. The fact is, the Anatomy Bill is a tissue of blunders, and consequently works wretchedly. It is expected that during the ensuing session it will most seriously affect the London dissecting-rooms, as parish-officers and vestries are disgusted with it, and nearly all have come to the determination to have nothing to do with it. I have the honour to be, Sir, yours very faithfully,

JOHN BIRTWHISTLE,* Surg.

Mile End Road, London,
Aug. 21st, 1833.

* Mr. B.'s name has, in his former letters, been misspelt by the printers, and we owe that gentleman an apology for the error. On the present occasion it is correctly printed.—ED. L.

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The M.S., which one of our correspondents last week wished to receive again after publication, cannot be returned. Compliance with his wish would be contrary to universal custom. Besides, "Copy" necessarily becomes too much defaced by the ink-defiled fingers of compositors, to make its restitution desirable to any author, who can have his production in print, excepting under very peculiar circumstances, such, indeed, as we trust, do not exist on the present occasion.

*E. R.*, Paddington.—We cannot offer any advice in such a case. Application should be made to an attorney.

*D. S.* should apply personally to a surgeon. An improper application might cause him much annoyance. Such affections cannot be well understood without being seen.

*An Old Subscriber.*—The production of such a document would subject the party to a prosecution, and, in the event of conviction, to imprisonment. It is generally good policy to comply with the conditions of even a bad law.

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ERRATUM, St. Bartholomew's Hospital Report, page 667, line 33, *for* with *read* within.

No. 520, page 670, col. 2, line 44, *for* 25 *read* 15.

In leader of last week, page 666, line 2, *for* to the law *read* of the law.